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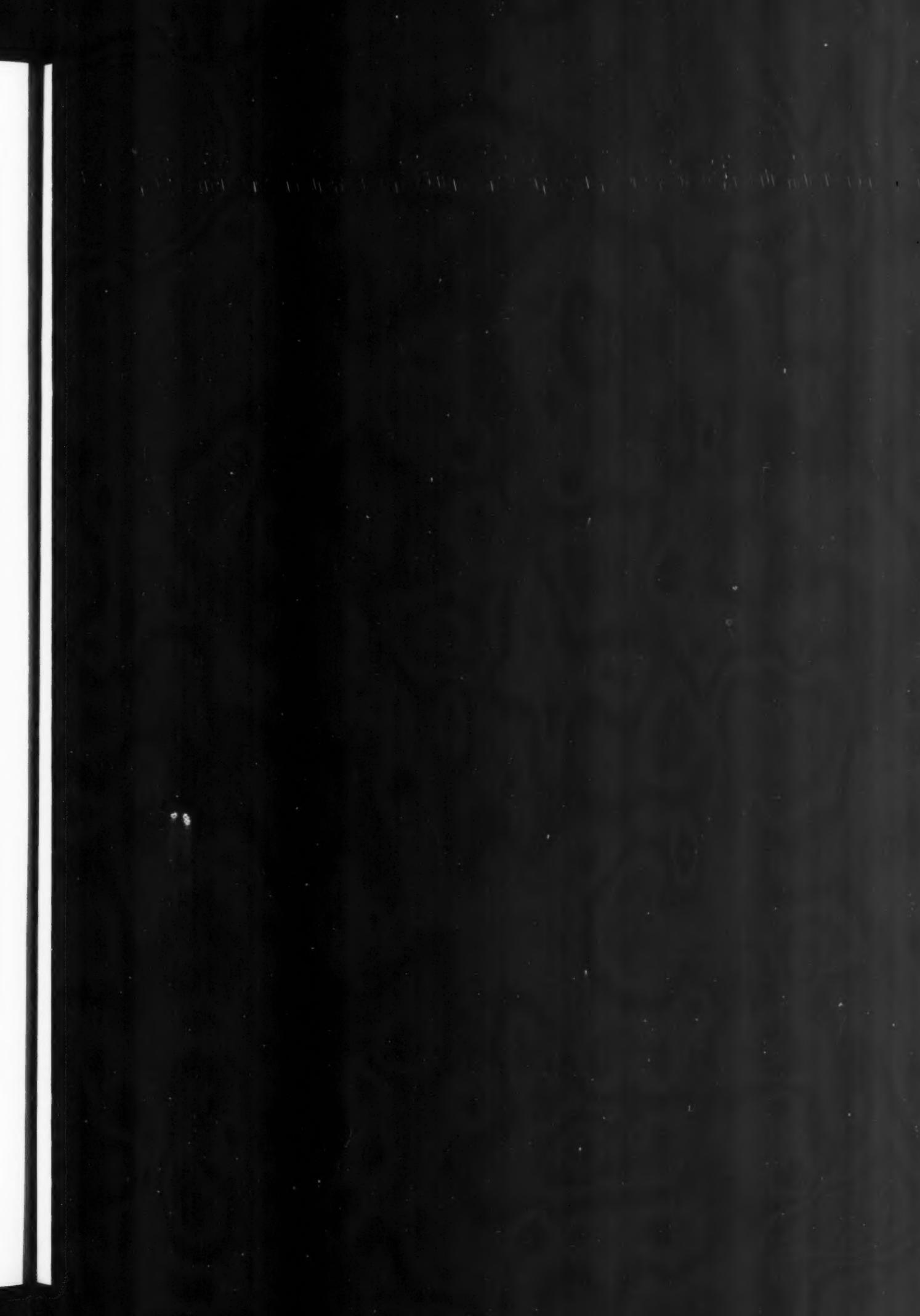
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Calculus Prostatitis, Operation (Anatomical Cure), Colon Bacilluria, General Treatment (Physiological Cure)*

VICTOR COX PEDERSEN, A.M., M.D., F.A.C.S.

New York, N. Y.

THE past professional generation, after much earnest discussion, at last decided that urinary stones cannot occur except after or through urinary infection. Very early I was one of those believing that stones cannot form except as part of profoundly altered and infected urine, precipitating instead of retaining in solution the usual salts of body waste. Altered and infected urine as the sole source of stones is never denied now.

Another question is what is infection of the urine? From the period just named almost to the present, infection has meant gross or microscopic pus and its concomitants. With the prevision of preventive medicine the tendency is growing to consider that urine infected which persistently carries large numbers of bacteria, at first without, then with profound alteration of the urine, and finally with various purulent or hemorrhagic processes and stones.

In other words, my opinion is reasonably positive that urologists miss a major duty first in preventive medicine by not inducing normal urine before destructive lesions occur, and second in protective medicine by not securing

relative or absolute disappearance of pathologic organisms from the urine after surgical procedure. Such protection is finally, in fact, prevention of relapses in the urinary organs and of extensions there or in the body elsewhere.

Although most urologists of today accept these axioms, there are not a few still satisfied with surgery alone in calculus cases. It is to such that cases like that in this report will be of instructive value.

The principle in final analysis makes such patients "hosts" or "carriers" of infection, always potential for harm at any moment and without much warning and usually productive of harm, sooner or later; and soon rather than late.

The quality and quantity, site and extensions, complications and sequels cannot be foreseen.

There are many parallels in long established knowledge.

During the first few days of the incubation of all infectious disease many patients have few if any symptoms definitive of a diagnosis and yet they are "carriers" of infection, progressively to develop its potentialities and to settle the diagnosis.

* Presented before the Section of Genitourinary Surgery of the New York Academy of Medicine, May 18th, 1932.

Except for the laboratory findings there are commonly but few symptoms in the following cases, but no one can possibly deny that the victims are indeed "hosts" or "carriers" each of his own infection: (1) typhoid carriers; (2) diphtheria carriers; (3) streptococcus tonsillopharyngitis carriers; (4) teeth, tonsils and intestines in a variety of infections, excluded here for brevity; (5) old gonorrhea; (6) syphilis; (7) tuberculosis (especially early).

The first three of these illustrations concern patients with personal recovery in general terms but with persisting organisms and with menace to all contacts. They are extrovert cases—infected toward the outer world.

The carriers of urinary infection are introvert cases—with all disease-causing factors directed toward themselves. Disease develops as masked or severe hemorrhage, as localized and multiple or solitary and general infection of the kidney substance, as involvement of the urinary mucous membrane in part or all of its extent, and as sand, gravel and stones in the substance of the kidney or in its pelvis, and in the ureter, bladder and prostate.

Additional reasons why these cases should be regarded as "carriers" are (1) the capacity of the kidneys to filter bacteria and their infectious material out of the blood for long periods without apparent lesion until finally an added factor produces one, and (2) the faculty of the organisms so filtered to attack the organs of excretion, passage and storage of urine.

One need not repeat the now familiar and classic proof of infected teeth, tonsils and intestines as the foci of infection in urogenital disease. Even this definite degree has been established—that pus from the teeth or tonsils of patients with renal lesions, when injected into laboratory animals, tends to produce not only a kidney disease but also the same kind of kidney lesion as in the human source of the pus.

These circumstances make this group of patients again "carriers" of infection in the teeth and tonsils as already indicated. When infectious flora of the intestines are added, we have the three great sources of acute or chronic disease of the lining and muscle of the heart, arteries, kidneys, muscles, joints, nerve-sheaths and sense-organs; in frequency of occurrence, practically as listed. The testes, prostate, ovaries and uterus may be invaded, as more rare lesions.

When these general facts are more fully realized and remembered then urinary stones will be regarded as severe terminal symptoms of profound infection whose source must be determined and corrected. A cure must be regarded as restoration of the urinary organs to at least freedom from infection and the urine to absence of precipitation and bacteria. A cure must equally be not only surgical removal of the stones but also medical removal of the infection and restoration of normal urine.

Such convictions are considerably ahead of the times. Inquiry suggests that most general practitioners and general surgeons know very few syllables of the principle, because their discussion seems to show their own doubts as to its validity. The main point is the presence of bacteria and the absence of subjective symptoms and the absence of objective signs except the bacteria and their faculties of damage.

The following case is typical of chronic colon bacillus infection during a constipation of at least 15 years. It is unique not in its causes and symptoms but in its consistent and persistent aftertreatment, because the patient comprehended and cooperated. John S. ——, white, 54 years old, single, watchman. Erysipelas 1897,

pneumonia and pleurisy, 1900. No previous sexual or urinary disease. In January, 1931, first noticed blood in the urine, especially after constipated stool or seminal emissions. Pain, frequency, urgency, tenesmus, pus, emaciation, weakness and fever all absent.

First visit February 6, 1931. The work-out showed multiple prostatic stones but no others by x-ray; blood chemistry, count, Wassermann and system normal; lungs normal; urinalysis normal except excess of indican, blood, chiefly prostatic epithelia and bodies, numerous and culturally active enterococci and *Bacillus coli* and many spermatozoa. Neoplastic elements absent.

Perineal prostatectomy (Syms' operation): removal of about 20 stones from bean to gravel size. It should be remembered that not only do bacteria develop a faculty for stone formation but also do organs suffer a lack of resistance thereto after such infections and stone formations. These facts account in large part for the frequency of urinary stone, recurrent in the same organ as originally.

Mindful of these dicta I did a very thorough removal so as to leave too little gland tissue for recurrence. There has been no recurrence or tendency thereto.

Immediate Aftertreatment: Uneventful recovery. Sitting up in bed 4th day, in chair 7th day. Walking 10th day. Urination through urethra on 14th day. Discharged on 21st day.

Remote Aftertreatment: Fecal and urinary examinations corroborated each other as to source and identity of the infection. Until June 20, 1931, for one week each month tests were daily. With improvement in both urine and feces the intervals were extended to one test each a month. The report of August 31st showed normal fecal bacteria with decrease in numbers and activity of organisms in the urine. Obviously the infection was losing in development and activity. The problem of maintaining and augmenting this gain was solved by not relaxing the treatment. The November 3rd urine passed in the laboratory was normal and bacteria-free excepting the usual nonspecific and saprophytic types.

This very encouraging result was secured in about 9 months as against at least 15 years (180 months) of constipation and its sequels, a ratio of one to twenty. I am apt to tell these patients that maintained results secured in one-tenth the duration of sickness are as prompt as possible. First one must stop a disease-process, next hold that gain and finally induce a return to normal physiology from active pathology: always long and difficult; never brief and easy. Treatment was not reduced so as to maintain the cure of the urinary infection. This is the physiological cure.

The bacteriology of the feces remained greatly improved but relapsed much or little with errors in diet. The control as to proteid and carbohydrate intake is very difficult even with intelligent people. Even they do not remember the broad and simple distinction (1) that vegetable food is the part or product of that which grows from the soil and (2) that animal or proteid food is the part or product of that which walks, runs, flies or swims.

Upsets of the bacterial balance in this man's feces appeared when he drank freely of milk at bedtime because someone had said that milk is a good food especially at bedtime. Milk is contraindicated in colon bacillus conditions because it is one of the best culture media for it. When such variations in the *Bacillus coli* count in the feces occur suddenly the proteid intake must be carefully restricted. Some of these cases remain normal as to their intestinal flora for indefinitely long periods. These patients have the best prognosis. Other and less

favored patients relapse every six months or so. Least satisfactory still are the patients who relapse several times a year—usually through stupid errors in diet. This patient will be analyzed at least twice a year until his periodicity is proved and relapse checked. It should be easy to prevent stone-formation.

How little operative enthusiasts know about such infections is revealed by these outlines of a recent case.

Frequent gastrointestinal disorder and constipation for twenty years under one physician (a former assistant at my clinic). Acute relapsing hemorrhage into the urine. Feces extremely foul, fermenting and putrefying, and like the urine filled with active identical pathological bacteria. Kidneys slightly enlarged and tender. Prostate and seminal vesicles very much enlarged. Urine filled with prostatic elements and spermatozoa. Primary diagnosis acute bacterial irritation of kidneys, prostate and vesicles. Later casts of all kinds appeared, making final diagnosis acute hemorrhagic infection without true suppuration. Treatment: bed, restricted diet, antiseptics for urine and feces, colonic irrigation. In about 14 days entire picture changed to nearly normal and the patient was returned to care of family physician to complete dietetic work-out. All bleeding had stopped, bacteria in the urine decreased in number and activity, and casts had practically vanished. Kidneys not tender, prostate reduced by at least half. Progress as a nonsurgical kidney and prostate case ideal.

Left alone for about a week that patient would have been ready for nonoperative office treatment and the entire condition cured. Correction of this man's intestinal infection, reached and maintained, would mean a ten-year life extension or more, as far as that disease is concerned.

Enter friend, house surgeon in a certain hospital, knowing, of course, only operative prostates; calls as consultant young enthusiast on operating. No contact made with family doctor (of twenty years' standing) or me for check-up. Patient rushed to hospital and an emergency prostatic operation done, doubtless on a pay-as-you-enter basis. This operation was not warranted by any facts of the case, because prior to this hyperacute bacterial development there was no subjective history of prostatism. Death from postoperative insufficiency of such a pair of kidneys might well have supervened, to be blamed on the operation as such rather than on the fanatical operation-frenzy as such. It is indeed a very long time since I have encountered a more flagrant case of failure to study a case before operating and in that circumstance more culpable ignorance in an operator.

45 West 9th Street.

Discussion

DR. ANTHONY BASSLER: Positive *Bacillus coli* urines are almost the rule. Generally no harm comes from these bacteria, although they may cause trouble. Studying the urines from males, from whom one can obtain a non-contaminated specimen more easily than from the female, a hundred consecutive urines cultured in non-genito-urinary disorders gave 34 with organisms other than the *Bacillus coli*, the same organisms being found in the intestinal canal of these individuals. The technique here was immediately to filter 50 c.c. of the urine through a Berkfeld filter and to use the separated portion as the inoculating material in various media grown aerobically and anaerobically. They comprised positives in one or more organisms represented in the genus types of Streptococci 5, Staphylococci 3, Diplococci 3, Bacteroids 3, *B. alkaliacus* 3; Bacilli, 2; Escherichia (other than *Bacillus coli*) 4; Eberthella 2; Micrococci 3; Clostridium 2; Salmonella 1; Pseudomonas 1; Aerobacter 1; Achromobacter 1.

The belief that organisms can and do pass through the renal cortex without the production of lesions is not only confirmed, but is far more common than is supposed. One might almost hold that the kidneys are for elimination of organisms from the blood stream, as part of their regular function. The speaker has reported that in 500 single vein tans cultured in non-pyrexic peo-

ple and not ill that 6 per cent of positives are secured. Recently Cameron, Rae and Murphy have confirmed this on healthy subjects, using only beef heart infusion as media, and also giving 6 per cent positive results.

There are remedies like hexylresorcinol and others that can clear the urine of pus during the time they are being taken, the result usually not being permanent. Thomas Brown studied the cases in Dr. Kelly's clinic and found 67 cases which reported in the old classification were *Bacillus coli communis* (present in half of all); *Staphylococcus pyogenes albus*; *Staphylococcus pyogenes aureus*; *Bacillus proteus vulgaris*; *Bacillus pyocyanus*; *Bacillus typhosus* and *Bacillus tuberculosis*. In 20 cases of pyelitis, the infections found were *Bacillus coli communis* 7; *Bacillus tuberculosis* 6; *Bacillus proteus vulgaris* 4; *Staphylococcus albus* 2; one was omitted. Others like Suter, Chetwood, Lowley and Kirwin, and Kelly and Burnam substantiated these findings, adding the *Bacillus alkaliacus*; *Streptococci*; *Bacillus Welchiei*; *Bacillus lactis aerogenes*, and others. Brown's work was done in 1905, the other since, all of it being done by primitive cultural methods. If done by advanced bacteriological methods a wider variety of organisms would be met with. All of these organisms with the exception of *Bacillus tuberculosis* are denizens of the intestinal canal. Any organisms in the blood stream or picked up by the lymphatics from the peritoneum are most liable to reach the kidneys. Once the urinary tract becomes infected, infection continuing elsewhere in the body, the urinary tract becomes constantly reinfected, and this is the main difficulty of controlling these infections as handled to-day, and the main reason for their persistency. If the source is intestinal and infection here is controlled, that in the urinary tract often responds. In my belief the infections of the renal pelvis practically always result from the bacteria of the *Escherichia* group, more generally known as the *B. coli* group. In the presence of accessory organisms which cause the splitting of urea into ammonia and water, such as *Bacillus proteus*, the pyogenic cocci, etc., the more particularly infecting organisms may engraft themselves with the production of lesions. It is often the incidence of these mixed infections that causes the infections, which usually are bilateral. As Crabtree has suggested, pyogenic cocci reaching the kidney set up an infection in the glomeruli, while the *coli* group are more likely to pass through the cortical substance and attack the distal structures; hence the more common incidence of the *coli* infecting the pelvis of the kidney and bladder, while the coccal infections attack the perinephritic tissue. The selectivity of the cortex for the pyogenic streptococci and the tubules for the staphylococcal forms is steadily advancing in belief as significant in chronic nephritis. In the kidney pelvis the *Escherichia coli* group practically comprise 90 per cent of the infections, while in those of the bladder and its structures, the pyogenic cocci and the *coli* are about even in percentage. Of course, such bacteria may be derived from any part of the body, such as the roots of the teeth, tonsils, sinuses, abdominal structures, etc., but in the majority they are from the intestines. Of importance, too, in certain single strain or simple mixture types of infection, are the toxic substances in the blood derived from bacteria still in the intestinal canal which act encouragingly on infection that is established in the urinary structures, and thus result in the continuation of lesions in the kidneys, the ureters, the bladder, and the base bladder structures. Therefore it is not enough in the control of urinary infections to study the bacteriology of the urine and have the therapeutics totally local so far as the urinary tract is concerned. The examination of all other parts of the body for focal infections is necessary, the most important one being the intestinal canal. Unless the latter is part of the examination and therapy, this aim of the urologist's work, namely, the control of infections in the kidney or bladder, will not be accomplished. Constant reinfection of the urinary tract from the intestinal canal and the supplying of symbiotic bacteria and symbiotic toxic substances are most important items for the control of chronic urinary infections. In my experience it has many times been proven that the clearing up of an intestinal infection or an intestinal toxemia has cleared the urine from adventitious types of bacteria. And also that worthwhile results have been accomplished in cases of pyelonephritis, pyelitis, cystitis, and the prevention of the recurrence of renal and bladder stones from intestinal handling alone.

DR. EDWIN BEER: In connection with the interesting presentation of Dr. Pedersen, and the illuminating discussion of Dr. Bassler, I do not think there is any doubt that the colon is a source of a lot of our urinary tract infections, and to make a lot of our urinary tract infections, and to make it a little more vivid, I want to recount one case. I saw a patient, a young woman who had been sick for eight weeks with attacks of pyelonephritis in a hospital out of town, where she was treated, according to urological principles, perfectly. She was running a high temperature, 105 deg. She was cystoscoped. The right kidney was tender, and pus was found in the specimen. The left side was negative. An indwelling catheter was left in, and

(Concluded on page 348)

The Rational Treatment of Nasal Diseases

DUNBAR ROY, M.D.

Atlanta, Georgia

EXPERIENCE, while often a sad teacher, is nevertheless a highly important one. Through this source much information is acquired by the thoughtful physician which can never be obtained from books and periodicals.

What is it that makes the successful pediatrician? Is it a knowledge he has derived from books, where diseases are discussed in clear, cold type? It is a knowledge which he cannot explain to others, an intuitive understanding which comes from experience and observation.

And so it is that there are no diseases in any part of the human frame which can be treated successfully by routine methods as furnished by text-books but which will be most successfully managed by the physician who studies minutely every case and combines intuitive and practical knowledge with that gained by reading and experience.

Progress in the recognition and treatment of all diseases is the daily history of medicine, and in no department is this truer than in nose and throat diseases. However, this advancement in nose and throat work has been reached only by those who have studied deeply into all their pathological conditions and have combined research and experience with practical applications.

The fact that every portion of the anatomy is dependent upon every other portion for the successful performance of its own individual function, must necessarily indicate how important it is for the physician to be broad-minded in his studies, and not practice with the idea that the portion of the body to which his practice is limited is a distinct entity by itself.

If I might be allowed a criticism, it is a fact that too many men enter nose and throat work without the proper preparation, which largely means that they have had no practical experience in the treatment of any other class of diseases. The laity itself is in much ignorance of this same point, for I have often been asked if a specialist also had to study medicine!

The specialist who thinks that with the triad armamentarium—spray, cautery and knife—he is able to treat and cure all nose and throat diseases, will in a short time come to grief. There is entirely too much treating of symptoms in medicine and not enough treating of causes. It may seem odd for this statement to come from one who limits his practice to these diseases, but I honestly think that many a patient is to-day suffering from too much treatment. There is such a thing as overdoing matters, and the habit these days of people having their noses and throats treated year in and year out is producing troubles which before did not exist.

Not long ago a patient came to me from a distant city in Florida, and like all those who have the treatment habit, she was able to tell me exactly her nose and throat troubles before an examination was made. She had only a few days to stay in the city, but she wanted treatment. From her I ascertained that for the last three years she had been under constant treatment for her nose and throat. She was treated for weeks in New York by a certain well-known specialist. On her way home she had to stop in Baltimore because she felt the need of treatment. If she had not been on a through sleeper to her home, I imagine that she would have been treated at intervals on the way. She reached home, and the specialist there continued to treat her three times a week.

When I examined carefully the nose and throat condition in this lady, there was found only the dry, irritative state of the mucous membrane incident to too much local treatment. "Madam," said I, "do you wish me to tell you honestly the severity of your trouble? Then if you wish such a statement from me, I would say that you are suffering from too much local treatment."

This statement is no idle fancy of the mind, for I am firmly convinced that many people today are afflicted with the treatment habit. Several years ago I read a paper before the Georgia Medical Association on "The Use and Abuse of Nasal Sprays." With increasing years of experience, I am more than ever convinced that the spray habit is becoming a fixture upon many of the American people. A more pernicious habit and one that affects more disastrously the nasal membrane can hardly be found than that of daily spraying the nose with some oily menstrum containing menthol. The "spray doctor" is even now spoken of and held in ridicule by the laity, for it does not take a Solomon to see that the specialist who daily calls "next" to the waiting horde of sniffers who fill his reception room is covering up his professional ignorance with cheap explosions of compressed air. Nor must we forget, in this crying desire of the uneducated public to have their noses sprayed, that it is just in such a manner that cocaine habitués are produced. When a patient is obliged to go to a specialist every day because of the craving desire to be sprayed, then the whisky bloat is in no worse physical condition than this same spray-obsessed individual.

Specialists in nose and throat work must recognize the fact that local treatment is often secondary to the systemic. The man who daily treats his patients in an automatic manner, because when he looks into a nose or throat he sees certain objective appearances, must necessarily keep his patients coming to him indefinitely, for all such treatment will never be curative.

If the physician will study his cases thoroughly, and make a most careful examination at the beginning, it will not be often that a patient will have to spend a good portion of his time at the doctor's office.

Hence the intent of this paper is a plea for a more thorough and rational treatment of the various nose and throat diseases, and, I may add, a plea for local treatment only when such is needed. I wish, also, to raise my voice against the universal and indiscriminate use of sprays and prolonged courses of treatment, which in many cases must destroy the physiological functions of the mucous membranes and stamp an opprobrium upon this recognized specialty.

How often have you heard someone say: "Well, I have been going to Doctor So-and-So for the last six months, and I am no better now than I was before"? Surely there is some ground for such adverse professional sentiments as these, and it is our duty as physicians to deal honestly with our patients. It is this honesty which distinguishes the true physician from the quack, and because this patient is able to pay you a good fee is no reason why he should be kept under treatment when you know positively that his apparent improvement will last only so long as the treatment continues. There is not the physician living who does not sometimes make mistakes, for I have no confidence in such as do not, but I do believe that mistakes are often the result of the

lack of thoroughness in the examination of cases. Other mistakes are sometimes due to a habit of routine practice, in using the same line of treatment for all cases.

Let us take some of the more or less subjective symptoms so often complained of by persons who think that they have nose and throat diseases, and see just what pathologic conditions they might represent and how easy it would be to treat them erroneously.

1. Take first pain, which is a subjective symptom of such prime importance to every individual.

In the nasal cavities proper this does not often occur unless there is severe acute inflammation or severe traumatism. In acute rhinitis, for instance, pain, when it does exist, is of the hot, burning character, producing more pressure and congestive neuralgia in the surrounding parts than in the cavities themselves. The membrane is over-sensitive, especially to cold air and a dusty atmosphere. For this reason, I am fully convinced that it is illogical to allow people suffering with acute rhinitis or acute cold in the head to go out in the cold during the winter and have the nasal cavities sprayed, thus affording double opportunity for more irritation of the mucous membrane. These cases belong to the family physician, and not to the specialist, as such need mild depletive measures at home if we would see the nasal mucous membrane return to its normal state.

Pain in the region around the nose is often indicative of some pathological condition of those cavities which empty their secretion through the nose. Pain on the side of the nose radiating out of the cheek bones is at least suggestive of antrum disease following an acute rhinitis.

Severe pain at the root of the nose, and a little external to the median line, especially if it be increased on pressure, is suggestive of a threatened abscess in the frontal sinus. However, pain as a diagnostic help in nasal diseases is too uncertain to be of any material aid.

2. Take a second symptom, that of sneezing. In acute rhinitis we recognize this as part of the disease, and the congested, irritative state of the mucous membrane would offer sufficient explanation for the frequency of this symptom. The old idea that whenever a person sneezed he was taking cold has long ago been exploded, for there are too many local and systemic conditions which will produce this irritative explosion without necessarily meaning a cold.

There are some people who might almost be termed "habitual sneezers," and with these I do not class that numerous horde denominated "hayfever and rose cold sufferers," who sneeze on the slightest provocation. With this class of patients it is the first thing they are conscious of in the morning; they are guilty of it whenever they pass through varying intensity of lights; the passing from a cool atmosphere into that of a warm room will cause it, and even emotional excitements of various kinds must be reckoned in the same category.

How foolish then to treat this symptom alike in all individuals. It would extend this paper to an unpardonable length to go into minute details, and I shall only mention some of the causes of this symptom, and then you can see how necessary it is to study minutely every case if you wish to treat patients successfully.

(a) There is a class of people who have what I have denominated as hyperesthetic rhinitis. If you will examine the nasal cavities of these individuals nothing abnormal will be discovered, and yet they will have spells of sneezing. If you will touch the mucous membrane in these cases you will see its extreme sensibility.

This condition I have most often found in neurotic individuals, and in those who do not take enough outdoor physical exercise. Local treatment is almost valueless, and results will be best accomplished by close attention to hygienic laws and careful building up by the family physician.

(b) There is another class of cases where the nasal cavities will show nothing pathological, and yet by further careful examination such will be found to have a marked acid dyscrasia. The blood is loaded to excess, and the nasal and naso-pharyngeal mucous membrane is constantly irritated. Think of spraying such an individual for the relief of his nasal symptoms!

(c) Then again we find those suffering with this symptom where a superficial examination of the nasal cavities reveals nothing abnormal, and yet by closer scrutiny and shrinking of the membrane we discover a polypoid condition of the mucous membrane at the posterior end of the middle turbinate and perhaps even a small polypus itself. Here is the focus of irritation, to be cured only by operative intervention, and yet too often have they already become the victims of the spray habit. These are some of the chief causes of the symptom referred to, and yet none of us would be contented with even such a limitation.

(d) Take another common subjective symptom, that of stenosis or stoppage of free respiration through the nose. Here it is that the unskilled and inexperienced get in their deadly work. The tissue covering the turbinates, as we well know, is known as erectile tissue, such as swells and shrinks according to the amount of blood which it contains. The most usual cause of nasal stenosis is a swelling of this tissue over the turbinates. This swelling and consequent blocking of the nasal passages may be due to either a true hypertrophy of the stroma elements of the membrane itself or to a swelling due to a stasis in or an engorgement of the erectile spaces through the determination of more blood to the parts. If due to the latter the mucous membrane will shrink entirely under the application of cocaine, and if to the former the hypertrophic condition will still manifest itself. The treatment of these two conditions must necessarily differ, and here it is that the successful rhinologist has been benefited by keen observation. Reduction of the membrane in the first instance, by means of the cautery, snare and knife, is frequently justifiable, but in that due to stasis, we must first seek the cause of this condition if we would have permanent successful results.

Take an instance of the latter—the man who imbibes freely at night and even during the day, and often eats inordinately. Every morning he suffers with nasal stenosis. But shall we cauterize or snare such a mucous membrane? Certainly not; open the bowels freely, stop the pernicious mode of living, and the nasal stenosis will take care of itself.

Dr. H. J. Mulford has called attention to the importance of urinalysis in the proper treatment of nose and throat diseases. He has shown that the condition of the kidneys is in a large measure responsible for certain changes seen in the nose and throat, and which entirely disappear under systemic treatment. The specialist who is successful in his practice is the man of broad observation, who looks beyond the narrow confines of the organs which he daily treats, and remembers that the whole animal economy is involved in the successful functioning of the smallest portion of the human frame.

Take now an objective sign of nasal trouble, that of a discharge, and let us see how unscientific it is to treat it and not its cause. Many a nasal cavity is daily sprayed for a discharge, without any reference as to where it originates. When one remembers that a discharge from the nasal cavity may have its origin from the maxillary antrum, the frontal sinus, the ethmoidal cells, the sphenoidal sinus, or from disease of the mu-

cous membrane itself, one can readily see that such may be a sign of various pathologic conditions. Hence, for this reason, a most thorough examination is necessary whenever a patient consults the physician for the relief of a catarrhal discharge from the nose. Time does not permit me to mention the signs and symptoms which enable one to make exact diagnoses in such cases, my main object being to call attention to the manifold origin of this one sign.

During last winter I saw several cases where an attack of the grip was followed by abscess of the sphenoidal sinus. Ordinary treatment failing to effect a cure was the reason why they were sent to a specialist. The symptoms in these cases were almost universally the same. Intense pain in the top and back of the head—a feeling as if the head was tightly constricted in a band; pain worse in the early morning hours; a muco-purulent discharge from the nose at intervals. Objective examination showed an engorged mucous membrane. By shrinking the tissues with cocaine on a cotton applicator, the discharge could be seen coming from a point high up at the posterior end of the middle turbinate, frequently running down along the posterior portion of the septum. By contracting still further the tissues around the opening of the sphenoidal sinus, drainage was established in the natural way, and in a few moments the patient would experience relief. By using exactness in the drainage, these cases recovered in a few days, and by recognizing the source of the discharge one could treat it intelligently and at the same time quiet the patient as to the prognosis.

Take another common complaint, and that is the continual dripping of mucous secretion into the naso-pharynx, producing that annoying condition—post-nasal cattarrh. In the large majority of cases this secretion comes from the mucous membrane of the nasal cavities, but there are many cases where it is due to the secretion coming from some one of the neighboring sinuses or from disease of the naso-pharyngeal mucous membrane itself.

Therefore, we can readily see that if the source of the secretion is not located, satisfactory results in the treatment cannot be obtained by the ordinary use of sprays and douches. The habit of using and prescribing sprays indiscriminately is a most pernicious one which should receive more thoughtful consideration than has heretofore been the case.

There is a distinct disease of the naso-pharynx, known as chronic naso-pharyngeal bursitis, where the pharyngeal sac or bursa has become chronically inflamed and pours out continually a tenacious mucus. Patients suffering from this condition will complain of expectorating once every twenty-four hours a distinct scab of mucus, usually dry on one side and moist on the other, where it has been lodged in a depression over the pharyngeal bursa. On inspection with the post-nasal mirror one may readily see the depression in the center and a small opening leading into the bursa. Such cases are very unsatisfactory to treat, because you can benefit, but seldom cure. It is certainly honest, therefore, to recognize these cases and tell the patient in the beginning what he or she is to expect, and not have them become disgusted because they seem to be getting no better. I am firmly convinced that cases of this character are frequently wrongly diagnosed.

Time does not permit me to extend this paper, even though there are many other common conditions of which I might speak, and which are too often overlooked by the busy specialist. Conservatism and rational treatment of the nasal mucous membrane are gaining their adherents every day. Specialism too often causes us to be narrowed in the horizon of our clinical work, and too

infrequently do we stop to consider those broad principles of medicine which should be utilized in the management of every case. There are many workers today in the field of rhinology who would have us treat the nasal cavities as we would a mathematical proposition—to be governed by fixed and invariable rules for treatment. They would teach the student of medicine that there must be a fixed diameter of these cavities, to be made so, of necessary, by wholesale destruction of tissue. They seem to forget that the divine Creator never made a perfect man, and we might say perfectly proportioned nasal cavities. This aggressive treatment of nasal diseases is much to be deplored. I mean by aggressive, such things as too frequent use of the electrocautery, operative intervention in every anomaly which prevents the nasal chambers from being mathematically correct in their proportions, and last, but not least, the daily use of sprays, which is unscientific and the producer of an exceedingly pernicious habit. In an address years ago by Dr. Chas. H. Knight, of New York, he most happily expressed my own views on this important subject. He said: "In consequence of this rhinological enthusiasm, the nose has been looked upon as a probable source of every human ill, and a ruthless slaughter of intranasal structures, without regard to their physiological functions, has been universally practiced. Happily a saner view is coming to prevail, and the belief is growing that epilepsy, asthma, dysmenorrhea and arthritis of the knee may have other causes than a hysterogenic zone or a point of pressure within the nasal fossae."

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The Value of Intracardiac Injections of Adrenalin

The efficacy of adrenalin injection into the heart in asphyxia has recently been disputed. Sir E. Sharpey-Schafer, F.R.S., and Mr. W. A. Bain describe experiments on cats designed to test the value of such injections. A simple asphyxia was produced by occluding the trachea, the animals being anaesthetised with urethane. It was sometimes possible to revive the animal after the circulation and respiration had ceased by artificial respiration, provided the interval had not been too prolonged, though mere renewal of the air in the chest through a tracheal tube might have no effect. It was shown that where this latter procedure had failed, intracardiac injection of adrenalin quickly caused the heart to beat again. The blood pressure rose rapidly from zero to high levels, and then natural respiration was resumed. The recovery is attributed by the authors to the stimulating action of the adrenalin upon the arrested heart. Blood is pumped through the aerated lungs, and the asphyxiated bulbar centers are restored to their normal condition. The drug also acts upon the arterioles, and it is their contraction which causes the high blood pressures observed, and maintains the pressure at a sufficient level. These striking effects are most rapid if the injection is into the myocardium; if it is into one of the heart cavities they are produced more slowly, as the adrenalin then has to traverse the aortic and coronary systems—and if into the right heart the pulmonary system in addition—before it reaches the heart muscle. It was shown that in rare cases an adrenalin effect can be obtained with heart massage and artificial respiration without an actual injection. This appears to be due to the passage towards the heart of adrenalin-containing blood which has stagnated in the suprarenal veins in consequence of the failure of the circulation, and as a result of the intermittent pressure applied to the thorax and abdomen becomes driven to the heart. The work gives clear confirmation of the value of adrenalin as a stimulant to the heart and to the whole vascular system.—*The Lancet*.

Conservative Treatment of Cholecystitis

J. Tate Mason and J. M. Blackford, Seattle (*Journal A. M. A.*, Sept. 10, 1932), report the results of a study which has confirmed their impression that in well defined chronic cholecystitis not relieved by medical treatment the operative results are most satisfactory. However, contrary to usual surgical advice, chronic cholecystitis may, in approximately one third of the patients, be successfully treated along medical lines. The risk of developing a surgical emergency or calamity while under medical treatment is not greater than is the risk in the best elective gallbladder surgery.

Curious Cases in Ear, Nose and Throat Practice

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ALTHOUGH every nose, throat and ear man of experience has seen interesting and curious cases, I have thought it worth while to set down a few notes on certain conditions which I have observed over a period of some twenty-five years.

The first that I shall report is that of a young woman, aged 28, who came to my office complaining of pain in and discharge from the right ear. She stated that about two weeks previously she had acquired a severe cold, and while blowing the nose had "felt something pop" into her right ear. This was followed by severe pain for 24 hours and subsequent discharge, when the pain was relieved. She called in a general physician who prescribed bichloride irrigation every 2 hours. After carrying out this treatment for two or three days she noticed that after each irrigation there was a metallic taste in her mouth and a burning sensation in the throat. In the meanwhile the pain had recurred in the ear and a new kind of pain had developed **behind** the ear. Upon examination, I found tenderness over the cardinal points on the right mastoid and considerable discharge from the right ear, which, when removed, showed a large perforation of the drum. The nose was full of bloody crusts and the pharynx had the appearance of having been cauterized on the right side. In other words, in addition to the acute middle ear abscess from which this patient was suffering, she had burns involving the tympanic cavity and pharynx associated with a mild mastoiditis. I ascertained by conversing with the physician that he had recommended bichloride of mercury in about 1 to 500 solution, stating that he had derived this information from a text-book. As soon as this treatment was discontinued and mild alkaline irrigation was resorted to, together with suitable treatment to the nose and throat, the active, irritating ear symptoms began to clear up and in about 6 weeks the patient became quite well.

About the time that this patient was under treatment, I had an interesting case at the New York Eye and Ear Infirmary. The little patient, 4 years of age, came in with a history given by his mother that another child had put a stone into his right ear. Some attempts had been made to dislodge this, first by the druggist and then by the family practitioner, but these gentlemen having failed, the child was brought to the hospital. The stone could scarcely be seen owing to the swelling of the canal, but it could be distinctly felt with a probe. We tried various types of grasping forceps and strong holding forceps, but were unable to dislodge the foreign body. Eventually, I succeeded in passing a wire loop around the stone and used strong traction, but to no purpose. The attempt was then given up as it was late in the day and I felt sure that an operation would be necessary in order to remove it. The operation I had in mind was a simple incision behind the pinna, splitting of the posterior wall of the canal and removal by this route under direct vision. However, after I left the hospital, another otologist, thinking that he could easily remove it, tried several types of curettes with rather disastrous results, as the

subsequent history will show. On the following day, I went to the hospital with the special purpose of operating on this case, when I found upon examination that the stone had been pushed through the drum into the middle ear cavity and was still firmly wedged there. It became necessary, therefore, to do a radical mastoid operation. Upon uncovering the antrum, it was found that a piece of shale stone was caught by two angles—one angle was fast in the eustachian tube orifice and another angle was caught in the antrum opening. It was necessary to take out the remnants of the drum and the ossicles, because if these had been left behind chronic suppuration would surely have intervened with the certainty that a radical mastoid would have been necessary at a later date. Therefore, the entire middle ear cavity was cleaned out by the usual radical mastoid technique. The ring of a broken curette was found in the depths of the tympanic cavity! The child made a good recovery and when last examined heard a whisper at about 15 feet.

Another unique case is that of a foreign body in the nose. Both the patient and the specimen were shown before the Academy of Medicine, Section on Rhinology, and excited considerable comment. A colored man, 34 years of age, a native of the West Indies, came to the clinic because of a chronic, foul, nasal discharge. This annoyed his friends more than it did him and he was forced to seek relief. Upon examination of the right nostril, a hard, black mass was seen lying in the inferior meatus bathed in pus. My impression was that we had to do with syphilis, and that the outer nasal wall had become necrotic leaving a slough of bone. Upon grasping it with heavy holding forceps, the mass began to come away quite readily, and by careful traction it was quickly delivered. Holding it under the water tap, it began to disintegrate. Therefore I stopped promptly, and, examining it more closely, found that it was an iron bolt measuring $5\frac{1}{2}$ cm. in length, $1\frac{1}{2}$ cm. in diameter, and weighing 28 grams (about one ounce). The history was then obtained that about seventeen years previously, this boy had been trying to manufacture a "gun" from a piece of bicycle tube. He had obtained the iron bolt from part of an old bedstead, had screwed it into the pipe as a kind of breech-block, and had drilled a hole through the tubing to act as a fuse-hole or touch-off. Gunpowder was then packed into the tube, and holding the pipe against his shoulder, he had someone strike a match and set a flame to the touch-hole. The result was a violent explosion which knocked him down and caused him to lose consciousness. He was confined to bed for seventeen days under the care of a physician. The iron bolt was never found. He had been able to breathe fairly well during the seventeen years since the accident but the nose had always discharged freely, and he thought that he had acquired a cold which was incurable. A curious circumstance is that at the time of the accident the boy was 17 years of age, was confined to bed for 17 days and carried the bolt in his nose for 17 years (being 34 years of age at the time of removal), and if one wished to make the story still stronger, the foreign body might

be said to have been removed in approximately 17 seconds!

Although the operation for removal of tonsils and adenoids is usually a slight one, it sometimes is associated with unfortunate happenings. I remember a child whose tonsils and adenoids were successfully removed, who vomited and aspirated when coming out of the anesthetic. He became cyanosed and I was hurriedly called when about to leave the hospital. He was immediately taken to the operating room and a tracheotomy tube was inserted, through which, however, he never breathed. On autopsy we found that he had choked on an orange seed. Questioning further, we elicited the fact that someone visiting the ward had allowed him to have a piece of orange a short time before he took the anesthetic. Of course, absolutely no food is allowed such cases and the stomach should have been quite empty, but the intended kindness of someone was responsible for this child's death.

Speaking of the removal of tonsils and adenoids, another interesting case was that of a little girl about 10 years of age, a clinic patient, upon whom I operated in the hospital. The gentleman who administered the ether was in somewhat of a hurry and used it quite freely with the result that, apparently, the child swallowed a considerable quantity of it. At any rate, the operation finished, the child was seized with a vomiting attack and gave up two or three drams of ether plus a curious foreign body. To our great surprise, a worm about 6 inches long, round at both ends, was found in the basin. The worm was stiff and hard as if it had been preserved in a specimen jar. An attempt was made to get the father to have the little patient studied further, but he took it for granted that no more worms were present and did not wish to take the child to another institution.

A third interesting tonsil case, done under *local* anesthesia, was that of a doctor's wife from the West. The operation was completed with entire satisfaction, the patient's husband being present and taking great interest in the procedure, but after removal we saw a peculiar projection in the right tonsil fossa. This extended as high up as one could feel with the finger, and down to and even below the level of the base of the tongue. It apparently was a persistent and very much elongated styloid process which lay very close to the surface of the superior constrictor muscle. It was deemed unwise to attempt removal and it was left as found. Such an anatomical anomaly is not very rare, however.

It is remarkable how much little incidents in the practice of medicine sometimes count. I remember being called about 2 A. M., while doing general practice, to a man who had suffered a severe chill and had fallen out of bed apparently unconscious. When I arrived he had been put back in bed and seemed to be quite normal except for the attendant fright. All one could find upon examination was a small abscess in the episternal notch which had apparently been caused by infection from a collar button. There was a rise of temperature to about 102° F. and a feeling of malaise but no other general symptoms. He was advised to come to my office in the morning for incision and drainage. This he did not do, however, and it was only upon inquiry that I learned of the subsequent history of this case. About two months later he had developed severe cerebral symptoms with headache, nausea and vomiting, disturbance of equilibrium and some visual difficulty. All this, of

course, was only hearsay and I cannot vouch for the accuracy of the statements, but at any rate a diagnosis of brain abscess on the right side was made and the patient was operated upon by an excellent surgeon. The abscess was found and drained but the patient subsequently died of meningitis. It seems hardly possible that this small abscess in the episternal notch could have been the direct cause of such a fatality. The brain abscess may, perhaps, have preceded the episternal abscess. This, of course, can never be known.

Speaking of collar buttons, a curious case came to my attention, although not under my professional care. This occurred in the son of a president of one of the subsidiary companies associated with a large American corporation, and the details were related by the father of the patient. At the time the story was told the son was 22 years of age and had been a chronic invalid for eleven years; that is, since he was eleven years old. He had coughed up quantities of foul sputum for years and had lost much weight and strength, general symptoms which would point to a possible pulmonary tuberculosis. The patient was examined by some of the most famous diagnosticians in Europe and by many physicians in this country, but a definite diagnosis was never arrived at, and no tubercle bacilli were found at any time. The idea came to the father that an X-ray picture might show something, but this was scoffed at by one or two examiners, and was not mentioned again until a New York throat surgeon suggested it. To the great surprise of everyone, a well-defined collar button was seen lying imbedded in the right bronchus. Dr. Chevalier Jackson, then in Pittsburgh, was retained by long-distance telephone, and the patient was taken to Pittsburgh. Dr. Jackson removed the foreign body by direct bronchoscopy with great difficulty, inasmuch as it was very friable. The head came away first, then the shank, and finally, the base, but it was completely removed. Following this successful operation, the lung drained for several months, but finally cleared up and the young man became quite well. The father told me that the child had never been able to go to school or to be tutored owing to his invalidism and had therefore grown up quite ignorant. Moreover, the cost of attempts to be cured had been very excessive in comparison with a very modest fee for the ultimate removal of the foreign body.

Infection of the neck following tooth extraction, although quite common, is not well known, since these cases are infrequently reported. I have been fortunate in treating several of them. The first one, which is very distinctly remembered, occurred in a man, aged 54, who had two teeth extracted from the left lower jaw by an exodontist. On the following day the gum was very swollen and tender and there was some submaxillary swelling on the left side. He returned to the dentist, who scarified the gum, applied iodine and sent him home. That was at the end of a 24-hour period. I first saw him some 12 hours later, when he was reported to have had a very uncomfortable night with increased swelling, pain, and tenderness in the left side of the neck. There was also some difficulty in breathing. Fearing an acute edema of the glottis, I advised that he be removed immediately to a hospital. He was therefore carried to a taxicab and I went with him personally. In consultation with a well-known surgeon, it was considered advisable to lay open the neck widely and immediately. This was done under novocain anesthesia

and an incision was made from the angle of the left jaw down to the clavicle, following the general line of the sterno-mastoid muscle. The mass was quite hard but no pus was located until exploration of the area below the angle of the jaw, when about a dram of putrid pus was found. This was drained in the usual manner and a wet dressing applied to the neck, no stitches being taken. The patient was returned to the ward in good condition but the operation seemed to help him not at all. His temperature continued high, 103° to 104°, with a corresponding pulse. He felt and looked very well indeed, but had no appetite, and attempts at feeding were unsatisfactory. About five days later, a second operation was performed, consisting of an incision parallel to the clavicle, and through and through drainage was instituted. Nevertheless, his condition did not improve, and the whole area became very dark in color and exceedingly foul. Upon pressure, gas could be forced out of the wound; in short, he was suffering from gas gangrene of the neck. The prognosis was regarded as utterly unfavorable, in fact, his death seemed imminent, and he was removed to his own home against the urgent advice of all interested, except his family. At this time I was asked to undertake his care and we proceeded to do thorough and elaborate dressings every 4 hours night and day. The wound was irrigated with pure hydrogen peroxide which was allowed to remain without being washed out. Rectal feeding was resorted to and stimulants were given in the hope of improving resistance. Moreover, it was feared that he might suffer an erosion of one of the great vessels in the neck; and, therefore, a complete, emergency surgical outfit was kept sterilized at the bedside in case sudden operation should prove necessary. Fortunately, the pressure on the larynx had been relieved by the neck incision and no tracheotomy was required. The case was a disgusting one inasmuch as the odor was almost unbearable, and it was possible to pick out masses of black, tarry tissue with the forceps at each dressing. The slough separated nicely in about 10 days and at the end of 3 or 4 weeks healing was under way. He did have, though, an opening into the mouth, through which solutions would flow, and he also had slight bleeding at times from the wound. This, however, all cleared up and he was about to be discharged, when, while out of town on a week-end trip, I was suddenly summoned to his bedside again. A fluctuating mass was found just above the left clavicle. This was speedily opened, pus escaped (about $\frac{1}{2}$ ounce), and a small white object was seen lying at the bottom of the wound. This was found to be a spicule of dead bone! Drainage was instituted for a few days and the wound healed nicely. Seen six years after his recovery he was found to be entirely well. Laboratory tests had shown anaerobic microorganisms and it seemed necessary to try to get oxygen into the tissues; therefore, the peroxide.

Another case of this type was seen at the request of Dr. E. Styles Potter of this city. This patient has been shown at the Academy of Medicine. Mrs. H., aged 48, had a right third molar removed by an extractionist, following which there was swelling, tenderness, difficulty in swallowing and, ultimately, difficulty in breathing. The right cheek became greatly swollen and this Dr. Potter opened from within, obtaining a small amount of pus. He also incised the right tonsillar region, but got little or no pus. At the time I saw her, about 4 P. M., the pa-

tient had considerable difficulty in breathing. The right neck was greatly swollen and the teeth were nearly set together, so that there was difficulty in examining the throat; therefore, immediate removal to the hospital was advised. This was done and at 7 o'clock, about three hours after the first examination, I did a tracheotomy under local anesthesia because it was thought that general anesthesia would be dangerous. As soon as the trachea was opened there was an inrush of air and the general cyanosis began to clear up. It was then possible to administer ether through the tracheotomy tube; and, this done, I enlarged the incision within the cheek and opened widely in the right peritonsillar region as well. Much foul pus was obtained, drainage was inserted, and the patient returned to bed. She did not improve, however, the temperature remained between 102° and 103°, and she coughed a great deal of muco-pus through the tracheotomy tube. She was fed by a tube placed through the nose and thus her nourishment was very well maintained. About one week later I considered it advisable to do a second operation. This time the old wound in the tonsillar region was opened very widely and deeply. A finger was inserted and came down upon a pocket of pus in the so-called pterygo-mandibular region. Following this operation, the patient did very well. The tracheotomy tube was removed and in about three weeks recovery was complete.

While speaking of peculiar conditions found in and about the mouth, I should like to report a mandibular cyst which occurred in a young man of 28. For some six months he had noticed a swelling of the left jaw. During this time he had been under the care of a dentist who had pulled the first molar, but the wound did not heal nicely and it was necessary to treat the socket many times. Ultimately, the patient tired of this and discontinued treatment. The jaw, however, remained swollen. He was X-rayed at the Manhattan Eye, Ear and Throat Hospital and the diagnosis of mandibular cyst was made. Upon cutting down upon the bone within the mouth I came upon a thin bony wall which comprised the cavity in which lay the cyst. We were fortunate enough to shell out the cyst intact, attached to the tooth. Iodoform gauze packing was introduced, and at the end of about three months the jaw was completely healed. A curious fact, however, remains to be told. Upon opening the cyst to examine its contents we found to our great surprise a piece of gauze! This apparently had been packed into the adjacent tooth socket by a dentist who did not realize that he was working in a cyst cavity and not a simple tooth socket. Recovery, as intimated, was uneventful.

Cases of sudden loss of voice are always interesting. I remember a man who was referred by an insurance company for diagnosis and treatment. This man was a carpenter who, while working in a cellar, was struck upon the head by a falling stepladder. When he regained consciousness he found that he was utterly unable to speak and claimed, therefore, a large amount of money for disability from the Workmen's Compensation Commission. Examination showed a complete bowing of the cords and absolute loss of voice. The diagnosis was hysterical aphonia. I treated him a few times without relief and then referred him to an electro-therapeutist, advising a powerful current which would so shock him as to cause sudden and complete recovery. Through some

(Concluded on page 348)

The Treatment of Otorrhea and Some Reasons for Its Failure*

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IN a discussion of otorrhea, its complications and the difficulties encountered in its management, one realizes that there are numerous phases met with that cannot be governed by either one or another "rule of thumb" treatment. The problem of treating an acute otitis media is altogether different from that of a chronic condition, and must vary depending upon its etiological factors.

To facilitate a better understanding of the prevailing conditions let us differentiate the acute suppurative otitis media from the chronic. An otitis media is relegated to the class of chronicity when it persists for a longer period than 6 weeks or two months. An acute otitis media may be either of a catarrhal type or a true suppuration. Since our discussion pertains only to a suppurative condition we can dismiss the question of an acute catarrhal otitis media with the statement that it is the earlier stage of the suppurative and that the symptoms, pathology and course are alike, except in degree. An acute suppuration may be superimposed on an old chronic condition which has had an acute exacerbation due to a fresh cold, influenza, etc.

There are a number of causes that are either direct or inciting. Whatever the causes may be, the infection always originates in the nose or nasopharynx and passes by way of the eustachian tube to the middle ear. Among the various causes may be included the common cold, acute rhinitis, coryza, acute infectious diseases such as measles, scarlet fever, influenza, diphtheria, pneumonia; sinusitis, diseased tonsils and adenoids, bathing or diving in the ocean or infected pools, forcible blowing of the nose, nasal douching, and operations on the nose and nasopharynx.

The prevailing organisms are the streptococci, in their various strains, *B. influenzae*, *pneumococci* iii, *diplococci*, *staphylococci*, *B. pyocyanus*.

The infection originates as stated, in the nasopharynx, and travels up the eustachian tube. It may travel along the surface of the mucosa or in the tunica propria. In either case there is a sealing of the tube with the blocking of the infection in the middle ear and subsequently either a spontaneous rupture of the drum occurs or a paracentesis is performed and our problem is before us.

Every case of a chronic suppuration must have a previous acute attack. Several factors are present that may be conducive to chronicity. Among these are: 1. Neglect of an acute attack, especially in children—where the monomicrobial infection is changed to a polymicrobial state. 2. Where in spite of careful and persistent treatment the pathology has involved the ossicles or the bone and caused a bone necrosis. 3. Cholesteatoma, which is an ingrowth of the squamous epithelium of the external canal through the perforation in the ear drum in an attempt to epidermatize the necrotic area in the middle ear. However, owing to an adverse environment usually present, such as moisture and secondary organisms, nature's attempt at healing is defeated and this cheesy, foul smelling substance is produced. 4. Tuberculosis.

The pathology in a chronic suppurative otitis media

differs from the acute, in that in the early stages the infection is confined to the soft parts. There is a round cell infiltration involving all the layers of the mucous lining down to the periosteum. The epithelium loses its cilia and tends to become more cuboidal and epidermal in character. As the infection goes deeper, the bone becomes involved. The extension of the process may involve the mastoid and other structures and a mastoiditis, labyrinthitis, facial palsy and other complications may supervene. On the other hand the mucous membrane of the middle ear may be converted into proliferations, granulations, and polypi, which in themselves may be a series of pus-secreting areas or pockets and so prolong the discharge.

While a mastoiditis may accompany the suppurative otitis media the discharge may cease when the infection has been properly drained from the mastoid cells either with or without an operation. This is possible only where there is no extensive bone destruction in the mastoid cells. If this occurs a mastoidectomy is almost invariably necessary to remove the source of the pus.

To recapitulate some of the factors that favor chronicity one must mention diseased tonsils and adenoids, lymphoid collections of granulations, polypi and pus-secreting areas in the mucous membrane of the middle ear. The last may be especially localized in the epi tympanic space. Necrosis of the ossicles and mastoid involvement of a low grade act as factors. A purulent otitis media may persist even after a mastoidectomy, due perhaps to the fact that some of the infected cells either could not or have not been reached and drained. This is especially true in those cases where there is an extensive pneumatization and the infected cells may be found in the petrous apex, in the perilabyrinthine region or around the carotid or even along or about the eustachian tube.

The character of the discharge may give us an inkling of the underlying condition. An odorless, mucoid, stringy or even a mucopurulent discharge suggests a tubo-tympanic infection, taking its origin from some nasal condition or adenoid hypertrophy. A thin fetid discharge indicates a bony necrosis while a granular cheesy discharge with a marked fetid odor would suggest cholesteatoma. A very profuse purulent or mucopurulent otorrhea coming out as if under tension and requiring a considerable number of swabbings to cleanse the canal directs our thought to a mastoiditis.

After the discharge has been cleansed from the canal a study of the ear drum may reveal a considerable amount of valuable information. A perforation in the upper portion of the drum in Shrapnell's membrane, usually speaks for an epi tympanic infection, antral involvement or even mastoid complications. A perforation in the anterior or lower portion would indicate tympanic pathology particularly associated with a eustachian salpingitis. A marginal perforation speaks for bone necrosis while multiple marginal perforations are frequently seen in tuberculosis. The perforation may be so small as to escape our notice or it may be so large that one can look directly into the middle ear cavity. This latter condition is more frequently found in the more chronic ear discharges because the longer the discharge

* Read before the Medical League, April 25, 1932.

the greater the tendency for a larger perforation.

Treatment of an otorrhea differs in certain respects as to whether we have an acute or a chronic condition. In either case the first principle of treatment is cleanliness of the external canal so as to permit a freer drainage and quicker emptying of the middle ear cavity, to prevent the invasion of secondary bacteria and so produce a polymicrobial infection, and finally to prevent excoriation of the auricle and canal by the secretion.

In the acute cases the use of a 5% solution of phenol and glycerine is especially useful in the early painful stages. Stronger solutions may cause excoriation of the canal. A little later it may be well to use some form of "drying" drops, such as a combination of boric acid powder in 50 to 70 per cent alcohol. In children it may be necessary to use 25 per cent alcohol. Dry boric acid powder insufflated into the canal is efficacious.

Another method of treatment is the "dry" or "wick" method. The ear canal is thoroughly cleansed and a small wick of sterile gauze is inserted into the canal to impinge on the drum. This should be changed every 12 to 24 hours, being very careful to cleanse the ear canal thoroughly each time. The use of this, however, should not be employed in the acute infectious diseases, in chronic suppurative otitis media or where symptoms of mastoiditis are present.

The author has not had any striking success with the use of the antiseptic and dye disinfectants such as mer-eurochrome, metaphen, neutral acriflavine, hexylresorcinol, gentian violet, or others.

Frequently where the discharge is very thick, profuse and tenacious, the cautious use of a weak solution of hydrogen peroxide may dilute and help to drain the middle ear cavity. It is especially useful to cleanse the canal.

One cannot close the discussion of the treatment of acute suppurative otitis media without mentioning the use and the abuse of irrigations. There are two points of view on this subject and each has its many cohorts. Some men believe that the use of a warm boric acid solution to irrigate the ear, especially if used in an irrigating tank or bag with the reservoir low so as to give a slow stream and without too much pressure, is of extreme advantage in cleansing the canal. Others feel that the thorough cleansing by irrigation is a difficult procedure, especially in an obstreperous child. Furthermore, the ear drug and inner portion of the canal are rarely reached and there is always a greater danger in producing complications such as a mastoiditis. They condemn the small hand syringe for the same reasons and claim that better results can always be obtained by a careful wiping of the canal with a piece of cotton.

Our problem is somewhat different in the treatment of a chronic otorrhea, for here one encounters a different situation. Attention must be directed to certain etiological factors that may prolong a discharge or invite recurrences. Among these factors, particular attention should be paid to diseased tonsils and adenoids, or, where a previous tonsillectomy has been performed, one may encounter adenoid proliferations and hypertrophies in the nasopharynx and especially around the eustachian orifices. These may require further attention either by local treatment or curettage. The local treatment should consist of the shrinkage of the eustachian orifice by cocaine, ephedrine, or both, and followed by a colloidal silver salt, such as argyrol or neo-silvol. Local applications of 2 to 4 per cent silver nitrate solution is very beneficial. Following the shrinking down of the orifice of the eustachian tube by cocaine and ephedrine, one may also use gentle catheterization or politzerization. This is especially useful where there is evidence of a tubo-tympanic catarrh with a muco-purulent discharge.

Careful attention should be given to any pathological condition in the nose, such as chronic sinusitis, hypertrophies and polypi.

Granulations and polypi protruding through the ear drum or visible in the middle ear should be cautiously cauterized or removed by snare. A warning must be sounded in the use of the ear snare. Occasionally a polyp may be attached either to the dura or the facial canal through a dehiscence in the bone, and by a careless technique a facial palsy or a meningitis may result.

Locally there are a number of treatments in vogue, and each method produces its large number of cures. Yet, there are always a number of cases in which, for various reasons, a failure is recorded.

Thorough cleanliness is of prime importance. The ear canal should be wiped out with the cotton swabs, and if there is much difficulty in removal of the secretion, a little dilute hydrogen of peroxide may be used. Following this the instillation of the boric acid-alcohol solution mentioned above is very beneficial. To this may be added a few drops of formalin, especially where there is a foul odor.

The iodine dusting powder (Sulzberger) seems to be the most popular remedy advocated in the literature of today. This powder is an intimate mixture of boric acid and iodine. It is made in two strengths, 0.75 per cent and 2 per cent. When this powder comes in contact with the secretions in the middle ear, free iodine is liberated and unless granulations and polypi are present, a rapid cessation of the discharge occurs. However, this too has its number of failures so that other methods of treatment have to be added to our armamentarium.

Another method of treatment that has been discussed recently is the zinc ionization method. The ear canal is thoroughly cleansed and a few drops of cocaine and adrenaline instilled into the canal. After a few minutes the canal is almost completely filled with a solution of one-quarter per cent of zinc sulphate. The positive electrode of a specially insulated instrument is inserted into the ear, the cathode is applied to a leg or an arm and a current of two to three milliamperes is applied for eight to ten minutes and then gradually reduced. The after treatment consists of insufflating a little dry boric acid powder. In certain cases this form of treatment may work like a charm. It has been reported that in certain instances one treatment produced a cure. However, in general the results in various series of cases is no better by this method of treatment than by any other used. This method should be borne in mind nevertheless, for it may succeed almost miraculously, where other methods have failed.

Another treatment that is very simple in its application is the insufflation of dry boric acid powder after the canal has been thoroughly cleansed. This usually works very well, and the results are generally gratifying.

In addition there are a great number of treatments that are recorded in the literature each with its number of successes and each with its number of failures. Among these may be mentioned argentum Credé, ether, etc. However, those mentioned above in detail are the more popular and by far the more efficacious.

It is well at this point to reconsider for a moment a certain group of cases where, in spite of all attempted and in spite of every method used we still have failed to secure a dry ear. One wonders why. Many may be the apparent reasons ascribed for this failure and still when many of these reasons are assiduously attended to, we are certain to find a number of ears still discharging. What are some of these apparent causes for failure? If for the sake of emphasis reiteration is pardonable one might mention improper attention to the nose and throat,

persistent granulations in the middle ear, bone necrosis and destruction of the ossicles which may require osseousectomy, cholesteatoma and necrosis of the mastoid cells. The latter conditions may require mastoidectomy. In certain cases even after a mastoidectomy had been performed, the otorrhea may persist. This may be due either to an incomplete extirpation of all diseased areas or on the other hand one may again mention those extensively pneumatized mastoids with cells extending far into the petrous apex, about the carotid, the eustachian tube or about the semicircular canals. If the infection spreads to these cells it is difficult to reach and eradicate, because of the extensiveness of their distributions.

Finally one must consider the resistance of the individual as a factor of failure. To restore lowered resistance recourse must be taken to hematinics, viosterol, cod-liver oil, a balancing of the acid-base elements of the diet, quartz lamp therapy, vaccines (both autogenous and stock) and non-specific protein. It is extremely important in this type of case to cooperate with the pediatrician or internist in this latter phase of treatment.

Conclusions:

1. Under ordinary circumstances a detailed attention to the causative and sustaining factors will yield gratifying results either in acute or chronic otorrhea, with any of the methods mentioned above.

2. Some cases resist a cure in spite of anything we may do. Further study is required, for the cause may be of such a nature that some surgical procedure may be indicated: tonsillectomy, adenoidectomy, osseousectomy or mastoidectomy.

3. We may encounter failure in some cases in spite of any treatment or procedure. This is especially true in the mastoiditis with extensive pneumatization and here a repeated mastoidectomy is necessary.

4. Cooperation with a pediatrician or an internist is often of signal importance in aiding us in a cure.

1922 Spruce Street.

Calculus Prostatitis, Operation (Concluded from page 339)

The kidney was washed twice a day with some urinary antiseptic, acriflavine, I think, and the patient was improving. The catheter came out; the temperature was lower, and the doctor left the catheter out. The temperature started up again, and he re-catheterized her, and found pus on the second as well as on the first side. The temperature gradually came down, but did not strike normal. The catheters slipped out again, and they were left out for a few days, and then the whole cycle started over again. Indwelling catheters were put in for two weeks. The patient had been sick for eight weeks with high temperatures almost continuously. When I saw the patient both catheters were in; the x-rays were negative, and colon bacilli were in the cultures from both kidneys. I advised washing out first one side with silver 1:500, and removing that catheter, and the next day removing the other catheter, and leaving the patient alone. This was done, and the patient for three or four days seemed to be all right. They then called me up and said the patient was running a high temperature. She was brought to Mt. Sinai Hospital. I did not cystoscope her; she had a temperature of 104 with pus in the urine. I gave her two ounces of castor oil, and her temperature dropped to normal in 48 hours, and she never had a rise of temperature again. I must say that that particular case, after eight weeks' treatment in the country, where she had never had anything but an enema to move her bowels, impressed me very forcibly. In the same week I saw another case similar in character; I gave this patient two ounces of castor oil and the temperature dropped to normal in 48 hours, and she has never been troubled again. I do not believe one can recommend castor oil as a panacea for all these conditions, but there is no doubt that the use of castor oil in these cases demonstrates that there is a very intimate connection between the intestine and the urinary tract. In the old days, I believe Melchior wrote a monograph on this, and Heitz-Boyer, whenever he gets a chance to talk about pyelitis, emphasizes the relation to the intestinal tract and the entero-renal syndrome.

Dr. PEDERSEN: Both of Dr. Beer's cases indicate a very active and helpful evacuation of accumulated toxic material in the intestines, but such a catharsis cannot possibly correct the dan-

gerous bacterial and toxic conditions in the bowels only waiting to repeat their attacks upon the urinary system, finally with severe and permanent damage. Undoubtedly the urine of both patients is constantly filled with bacteria, exactly as in my own cases. This is the disease requiring "cure."

It seems to me that inasmuch as we have an Association for the Prevention of Heart Disease, which concentrates its attention and energy on diseases of the teeth, tonsils and intestines as causes of heart disease, it is high time that we as urologists realize we should concentrate on exactly the same sources of urogenital infections. Already it has been proved at the Mayo Foundation that the teeth and tonsils do play an exceedingly important rôle, but I have the impression that the intestines are entirely too often left out of account. I hope we shall stand hand in hand with that Association for the Prevention of Heart Disease in terms of realizing that stone in the kidneys, in the ureter, in the bladder, or in the prostate is only a terminal symptom, and that the real disease from which the patient suffers is infection, and further in terms of seeking the source of the infection which causes said stone.

Curious Cases in Ear, Nose and Throat Practice

(Concluded from page 345)

misperception, the sinusoidal current was applied instead, at three sittings. The patient was walking through Central Park on his way to receive the fourth treatment when he was set upon by gangsters who knocked him down, stole his watch and his wallet, and abused him generally. Very much frightened, he suddenly found his voice and was able to yell: "Stop thief! Police! Help!" The gangsters, nevertheless, got away and were soon lost to sight. The recovery of his voice was not only immediate but permanent, and the larynx has looked perfectly normal ever since.

Hoarseness is all too frequently set down as simple laryngitis. A young man employed in a downtown bank came in with a diagnosis of "chronic laryngitis". He had been treated over a period of several months with cough medicines and inhalations but to no purpose. Upon examination with a laryngeal mirror, a growth (papilloma) was seen in the anterior commissure of the larynx which kept the cords from coming together when an attempt was made to speak. Under cocaine anesthesia, the growth was removed and the voice immediately became normal. This is only one of a series of such cases which I have seen, and no doubt the experience of many other laryngologists has been similar.

These random notes cover only a few of the phases met with in an ordinary nose, throat and ear practice. No doubt, many confrères could report experiences just as interesting, but it seems worth while to get together one's data now and then and rehearse certain happenings which help to make the life of a doctor less irksome than it otherwise might be.

140 East 54th Street.

Serum Disease

Serum disease occurred in 28.1 per cent of 2,859 patients who received diphtheria antitoxin, in 22.7 per cent of 858 patients who received scarlet fever antitoxin, and in 81.8 per cent of 55 patients who received antimegococcus serum.

The occurrence of a serum reaction after the injection of diphtheria and scarlet fever antitoxin is determined in part by the susceptibility of the individual, by the toxic properties of the serum, and, in the largest measure, by the total quantity of serum given. Concentrated diphtheria antitoxin calls forth reactions in about the same proportion as does whole serum in corresponding bulk.

The serum reactions after the use of scarlet fever antitoxin were slightly less in frequency than those after the use of diphtheria antitoxin. They were not more severe.

The incidence of serum disease does not vary widely in the various age groups.

The interval between the injection and the appearance of the reaction varies from a few minutes to thirty days. The majority of the reactions appear before the eleventh day.—LUKE W. HUNT, M.D., J. A. M. A., Sept. 10, 1932.

Ménière's Disease*

DAVID N. KREMER, M.D., F.A.C.P. AND LOUIS D. SULMAN, M.D.

Philadelphia, Pa.

OUR purpose in citing this case report, with the discussion thereon, is to bring to your attention a diagnostic syndrome which, in its acute onset, is at first rarely thought of and, if not borne in mind, is likely to lead to diagnostic error.

On April 4, 1932, during the early part of the afternoon, one of us was called to see M. G., age 45. At that time he was lying across the bed, fully clothed, in a state of semi-collapse, with an ashen color, clammy skin, and a slightly accelerated pulse. The history obtained was that he went to his business that morning feeling perfectly well, but about noon he suddenly became dizzy, nauseated, and faint. He barely succeeded in getting home and had to be helped to bed. He described his vertigo as a sensation of everything revolving about him and this was aggravated by the slightest movement on his part. He kept his eyes tightly closed in order to relieve some of his dizziness. He attributed his condition to a possible dietary indiscretion the night previous. As his reflexes were exaggerated and he appeared to be in a highly nervous state, an initial diagnosis of a neurotic upset, with a dietary disturbance, was at first considered, and a sedative was ordered. Two days later there was no improvement in his condition, and he noticed a loss of hearing on the right side. On otological examination at this time the following signs were elicited: Marked tinnitus; marked deafness with some air conduction. Bone conduction was nil, Weber test referred to left, marked nystagmus present (rotary and lateral to the affected side), also some past pointing. Romberg present, with falling toward the right. Drum head showed some evidence of chronic middle ear catarrh. Tonsils were found to be cryptic, with pus exuding on pressure. These findings led to a diagnosis of labyrinthine disease, probably Ménière's. The thought of a toxic eighth nerve neuritis was also discussed. At this time laboratory studies were made. Wassermann was negative, urinalysis was negative and the blood pressure normal. Blood count showed some degree of polycythemia. He was admitted to the St. Agnes Hospital for a further study on April 12, and there an x-ray of the skull was negative, blood and urinary studies were normal, blood chemistry negative, and a lumbar puncture was refused. A tonsillectomy with local anesthesia was performed on April 15, and the patient insisted on going home two days later. While in the hospital a caloric test was made which showed a functioning but irritated labyrinth. At the time of his discharge from the hospital there was still some staggering and falling to the right. His hearing improved somewhat after catheterization of Eustachian tubes and massage of drum heads. This was attributed to the presence of some chronic middle ear catarrh. When seen ten days later, staggering was not so marked. Spontaneous nystagmus was much decreased and hearing still impaired, although improved compared to the onset of his condition, and he gave a history of having had two aggravated attacks of tinnitus and vertigo in the interim. The treatment of his case besides otological procedures was KI and rest.

In considering the onset and subsequent symptomatology of this case, we were led to believe that the etiological factor was a possible hemorrhage in the lab-

rinth, basing this on the later development of deafness with subsequent improvement, and secondary recurrences. The prognosis depends upon the question of repeated attacks, the subsequent formation of scar tissue, and the degree of destruction of the labyrinthine function. If this occurs, deafness will be permanent, but vestibular symptoms such as vertigo, nystagmus, etc., will disappear because of compensation.

In 1861, P. Ménière described a syndrome, often mistaken for cerebral apoplexy, and subsequently reported eleven case histories and one necropsy and since then the syndrome has been known as Ménière's disease. From then on Ménière's disease has been described as a group of symptoms which occur in various affections of the labyrinth or the acoustic nerve, usually apoplectic in character. The lesion is often due to embolus or a rupture of the artery supplying the labyrinth. Ménière's description of his first case may still be cited as a characteristic symptom complex. Quoting his original description: "Sudden onset of intense dizziness, vomiting, marked disturbance in equilibrium with a sense of rotation of the body around its long axis, with a tendency to fall toward the effected side, an associated nystagmus, and a diminution in hearing with tinnitus." In the early onset of Ménière's disease the patient is not able to stand and lies upon the sound side. Motion causes intense vertigo. These symptoms, in general, are pronounced for a period of four or five days and then gradually subside, but the nystagmus lasts for a longer time. Turning of the head changes the direction of the fall, differentiating it from central lesions. The disturbance in equilibrium eventually passes away but deafness may persist. The attacks may vary in severity and the symptoms depend upon the character of onset. Usually the affection is unilateral although bilateral cases have been reported. Many cases of acute vertigo have been classified as instances of Ménière's disease, but at present, with the development of the newer neuro-otological tests, the term is now limited to disturbances in the inner ear.

In differentiating the disease from cerebral apoplexies, the syncope that may supervene as a result of the vertigo and tinnitus, with associated nausea and vomiting, is not a true part of the Ménière's syndrome. Usually, the general physical condition of the patient is not impaired.

Labyrinthitis is usually secondary to middle ear inflammation via the oval or round window, and in these cases tinnitus and some degree of deafness usually precede the attacks of vertigo, which vary in severity.

Pseudo-Ménière's cases are due to vasomotor disturbances, either toxic or due to some disturbance in the control system of the cervical sympathetic, which would explain the transitory vertiginous attacks in anemia, toxic disturbance, etc. Tumors at the cerebellar-pontine angle, serous meningitis, brain abscess, or an acute phlebothrombosis may provoke symptoms suggesting Ménière's disease. In these cases complete recovery and absence of physical signs between exacerbations, and responses to vestibular tests, help to make the proper diagnosis.

Acute and chronic leukemias may cause deafness with tinnitus and vertigo, when involvement of the labyrinth takes place.

(Concluded on next page)

* Presented before the West End Medical Society, May 18, 1932.

Varices Simulating Femoral Hernia

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ERRORS in diagnosis are always a source of chagrin. The chagrin increases when the confusion is created by conditions which appeared to be obvious. The surgeon centers his attention upon diseases which are most common in a certain region, and he may forget that nearly the same clinical picture can be produced by pathology in contiguous organs or structures. This tendency explains the frequency with which varices in the femoral region are mistaken for femoral herniae.

The anatomy of the saphenous opening, the veins which converge towards it, and their relation to a femoral hernia must be kept in mind, in order to appreciate the essential differences produced by varices and herniae in that region. It should be noted that a femoral hernia makes its exit through the femoral ring just lateral to the os pubis; it descends downwards through the very short femoral canal and thence through the saphenous opening, presenting beneath the skin of the thigh just below Poupart's ligament. It has as its coverings seven layers of tissue; thus differing from the superficial veins in that region which are subcutaneous. The largest, the internal saphenous vein, ascends along the inner and front part of the thigh to a short distance below Poupart's ligament, at which place it passes through the saphenous opening in the fascia lata. The internal saphenous vein just before it empties into the femoral vein is joined on its inner side by the superficial epigastric and internal femoral cutaneous veins; on its outer side it is joined by the superficial circumflex iliac and the external femoral cutaneous veins. Valves, which serve to support the column of blood in the vena cava and illiacs, guard the junction of the internal saphenous and femoral veins. When these valves become incompetent the tension in the superficial circulation increases; and this tension is the chief factor in the production of varices in the internal saphenous or in its tributaries.

The differentiation between a varix in the femoral triangle and a femoral hernia is not difficult to make. Yet the two conditions are frequently confused. This confusion is partly caused by the fact that both swellings are within the same area; in fact, the larger the varix the more nearly does it occupy the exact position of a femoral hernia. Moreover, they both have a tendency to become progressively larger, and they both change in size with the change of position, and give an impulse on coughing. Pain, vomiting and irreducibility are symptoms common to both a strangulated femoral hernia and a thrombosed varix. A varix of either the upper portion of the saphenous vein or its tributaries is subcutaneous and easily compressible, but unlike a femoral hernia the swelling promptly returns when the pressure is released. If the hernia sac contains intestine, percussion over

it gives a tympanitic sound; when reduced a gurgling sound is elicited. A varix when percussed transmits an impulse to the saphenous vein below; when pressed it imparts to the finger a peculiar thrill, similar to that produced when fluid is forced from a compressible tube. With a reduced femoral hernia, pressure over the femoral ring keeps the swelling back; but when a saphenous varix is compressed and the pressure is shifted over to the femoral ring, it does not remain compressed because it enlarges from below. A varix of the upper portion of the saphenous vein is usually associated with a varicosity of the veins below it; but with a varix of the superficial epigastric or of the other saphenous tributaries, the veins of the lower abdomen and upper part of the thigh may be prominent.

These symptoms and signs are characteristic of varices and herniae in the femoral triangle. But note further: if the hernia sac contains bladder or a diverticulum of the bladder the difficulties of a correct differential diagnosis are increased. In such a case the mass is easily compressed and like a varix its swelling promptly returns when the pressure is released. The bruit which several observers contend is pathognomonic of a varix is likewise obtained when a femoral hernia containing bladder or a bladder diverticulum filled with urine is compressed. A review of the literature has failed to find this condition mentioned as a possible cause of confusion in differential diagnosis.

A sign which is pathognomonic of a varix in the upper portion of the internal saphenous, and which is invariably present, has been overlooked by writers on the subject. With the patient lying down and the leg elevated, milking of the superficial veins of the leg towards the femoral region will cause the swelling, if it is a varix of the saphenous vein, to increase in size. This maneuver will have no effect on the mass if it is a hernia. These described differentiations should make errors in the diagnosis of the two conditions rare. On the contrary, these errors are all too frequent and the correct diagnosis is very often not disclosed until the patient is operated upon.

The author's first case was a middle-aged obese woman, who had had a swelling in the right femoral region for about one year. The swelling was soft and reducible. When the patient stood the mass increased in size, when she laid down it became smaller, and when she coughed it produced a distinct impulse. She was operated upon for a femoral hernia, a distended white sac over the saphenous opening, about 4 cm. in size, was being dissected from a considerable layer of fat, when suddenly a gush of venous blood appeared from underneath the mass. The hemorrhage was severe enough to make one

Ménière's Disease

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In all questionable cases a thorough study, including a careful history, blood count, Wassermann and blood chemistry, besides ophthalmoscopic, visual field and the newer neuro-otologic studies, should be undertaken.

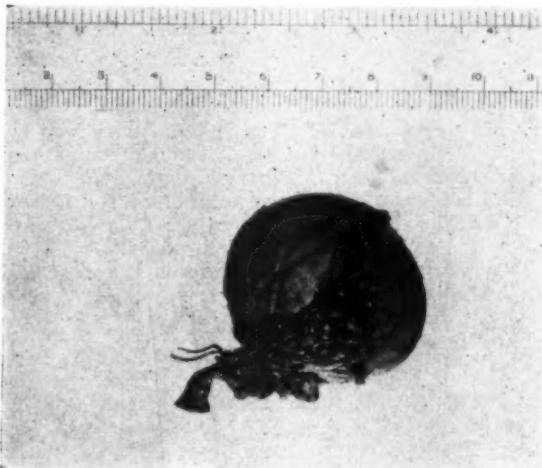
Treatment: Successful treatment in real Ménière's cases depends upon rest and medication such as iodides, pilocarpine, etc. Lumbar puncture and purging have been recommended.

5904 Spruce Street.
2031 Pine Street.

suspect it came from a tear or nick of the femoral vein. An investigation disclosed that the sac was a varix of a tributary of the saphenous vein and the blood was flowing from a tear at their junction. In this case the bluish color described as typical of a venous dilatation was lacking and other varicosities were conspicuous by their absence. It illustrates the unpleasant complications which may arise unless a correct preoperative diagnosis of a varix is made.

An adult male was admitted to St. Mary's Hospital from its out-patient department for a right femoral hernia operation. The swelling, 3 cm. in size, had the appearance of a hernia and gave the same symptoms, but it was about 2 cm. lower than the usual site of a hernia, and produced a distinct bruit when lightly pressed. An operation revealed the true nature of the swelling: a varix of the internal saphenous vein at the saphenous opening.

The third patient was a male, 47 years of age, who,



Varix of upper portion of internal saphenous vein removed from Case No. 3.

three months previous to his admission in St. Mary's Hospital, had noticed a swelling in the right femoral region. The swelling was over the right saphenous opening, about 4 cm. in size, subcutaneous, and associated with a marked varicosity of the superficial veins of the right leg. This case was particularly interesting because it lacked not one of the classical symptoms and signs of a large saphenous varix. He was examined in the outpatient department of the New Haven Hospital and was informed that he had a right femoral hernia. On January 16, 1931, he was operated upon by the author and a large varix of the upper portion of the internal saphenous vein was excised. This was followed by the removal of all the varicose veins below the varix.

Summary

Errors in the differential diagnosis between a varix and a hernia in the femoral triangle are frequently made. A varix has the following characteristic signs: 1. Percussion over the swelling produced by a varix in the upper portion of the internal saphenous vein will give an impulse which is transmitted and felt over the saphenous vein below it. 2. It is easily compressible but the swelling promptly reappears when the pressure is released. 3. A bruit is obtained when the swelling of a varix is lightly pressed.

In addition, the following observations, which

have not been previously described in the literature, are presented:

With the patient lying down and the leg elevated, milking of the superficial veins of the extremity towards the femoral region will cause the swelling, if it is a varix, to increase in size. This maneuver will have no effect on the mass if it is a hernia. The bruit obtained when the swelling of a varix is pressed, and which has been considered pathognomonic of that condition, is likewise obtained when pressure is applied over a femoral hernia containing bladder or a bladder diverticulum. The swelling of the latter condition, like the swelling of a varix, promptly returns when the pressure is released.

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Perennial Hay Fever and Its Treatment

G. T. Brown says that although perennial hay fever is frequently encountered by the medical profession, it is usually poorly handled, and, as a matter of fact, is looked on by most rhinologists as a more or less hopeless condition. On the contrary, when patients with the perennial type of hay fever are properly studied from the allergic point of view, most of them can be entirely relieved from their hay fever. Hay fever may be due to many different causes, and an exhaustive history is of prime importance in locating the causative factor or factors in the individual patient. Itching of the eyes is a most important symptom in perennial hay fever, as it strongly suggests sensitization to some air-borne substance that produces a conjunctival reaction simultaneously with that of the nasal mucous membrane. The treatment for perennial hay fever may be considered under the headings of palliative and curative. A nasal spray of some light mineral oil, such as liquid paraffin, used two or three times daily, may prove helpful as a palliative. The mineral oil, of course, has no medicinal properties, but acts mechanically to form a protective coating over the surface of the nasal mucous membrane, and is most effective when the hay fever is due to sensitization to some air-borne substance. A 1 per cent solution of ephedrine in oil, sprayed or dropped into the nostrils, combines the well-known shrinking effects of ephedrine on the mucous membrane with the protective and soothing properties of the oil. The curative treatment for allergic hay fever consists of the elimination of the offending substances from the environment or diet, desensitizing injections, or a combination of the two. In other words, the allergic person either has to keep away from the offending material or be made tolerant of it. If elimination and specific desensitization fail to cure the patient entirely of hay fever, some form of non-specific protein therapy should be resorted to, and in the author's hands, injections of concentrated peptone extract have given the best results. Injections of peptone seem to be most effective in patients with a constantly subnormal temperature.—(*Archives of Otolaryngology*, February, 1932, xv, 202.)

Endocrines

The cases in which it is possible to employ a true endocrine therapy—artificially to take the place of the internal secretion of a gland—are those of the thyroid, parathyroid, pancreas (insulin) ovary, adrenal cortex, adrenal medulla, and the two parts of the pituitary. Of these only one, the thyroid, is known to produce any effects when given by the mouth. The others must be administered by some other route. I have included the chromophile tissue ("medulla of the adrenal" in mammals) and the two parts of the pituitary in order to be on the safe side. But adrenaline and preparations of posterior pituitary are chiefly used as drugs apart altogether from the question of internal secretion and substitution therapy. The anterior lobe of the pituitary, though it produces marked effects on growth when injected into animals, has not yet been shown to be of service in the treatment of disease in the human subject. Extract of liver, given by the mouth, has been found to be valuable in the treatment of pernicious anaemia.—VINCENT, *The Practitioner*.

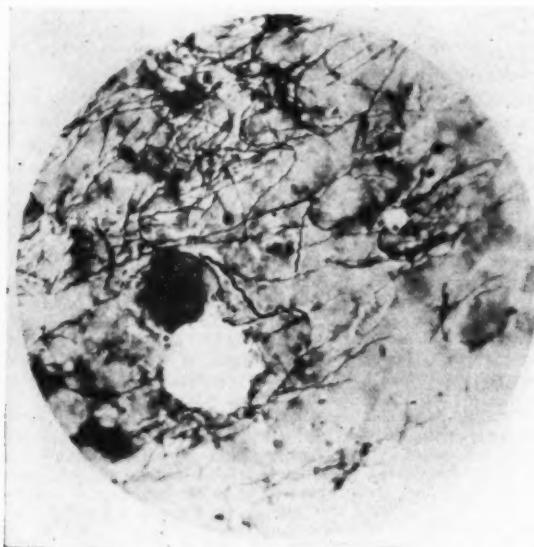
A Case of Spirochaetal Septicaemia

HORACE GRÉELY, M.D.

Brooklyn, N. Y.

THE patient (H. P.), a private detective, a native of New York City, 35 years of age, returned, 20 days before his illness, from a month's business trip to Cuba and Mexico, during which he slept in all sorts of filthy lodging houses, and was not too careful of his chastity.

His illness had an acute onset with intense generalized headache, marked weakness and fever of 104 degrees F. Twenty-four hours later, a profuse macular rash appeared, extending over the entire body, except the face. This rash increased to a



Culture of spirochaetes, 2nd generation on solid media.
Magnification 1200.

maximum forty-eight hours after the onset of the malady, and then gradually faded and was gone by the end of the week, at which time convalescence began. The fever then declined rapidly, and the headache disappeared with it. There were no catarrhal symptoms manifested, and the patient's mentality was clear throughout the attack. The patient entirely recovered after an illness of two weeks duration, and there was no relapse.

On the second day of the rash, at the request of the attending physician, Dr. Jacob Wachsman, I made laboratory tests, with the following results: The spinal fluid was negative—normal cell count, globulin, gold-sol, minus Wassermann, and negative culture. The blood Wassermann, the Widal and the Felix-Weil (for typhus) were, also, all negative. There was a moderate neutrophile leucocytosis. The blood culture was positive, showing, in a blood-bouillon mixture, after 48 hours incubation, many spirochaetes, somewhat coarser than the spirochaeta pallida, with 10 to 15 spirals each and endowed with a rotary motion. A few of the same were seen in fresh blood examined. These organisms appeared similar in texture and coiling to the spirochaetes usually found in relapsing fever. Transplanted from the fluid medium to the surface of a Loeffler tube

which had been wet with the fluid medium, and incubated for 48 hours under CO₂, a growth developed which, while invisible to the unaided eye, gave smears in which mycelian branchings were plentiful and, while some of these were only slightly kinked, many showed distinct spirochaetal coiling. Arising from the mycelium a few bud-like sporangia were seen (see microphotograph).

No animal inoculations were made, and no sera were available for agglutination tests to determine the type of spirochaete isolated. Except for the longer incubation, the rash, and the failure to develop a relapse, clinically the case resembles relapsing fever; and the probabilities of the patient's having been inoculated through the bites of vermin (lice, for instance) during his trip were very great.

Some cases of proved relapsing fever, however, have had only one attack and Weller and Graham¹ reported three cases in central Texas, caused by tick bites, which all showed a distinct macular rash. These cases had an incubation period of 6 days, showed moderate leucocytosis and blood spirochaetes of 10-15 spirals each, apparently similar to those found in the case herein reported.

The main interest of this case is the ease with which the infecting organism grew, and its development of a mycelial form.

140 Clinton Street.

REFERENCE

¹ *J. A. M. A.*, Vol. 95, p. 1834.

Celiac Disease

There are a constitutional tendency to the disease and a characteristic intestinal flora.

There appear to be a faulty absorption and utilization of carbohydrates and fats. The fats are of secondary importance, for if strict attention is paid to the carbohydrate intake, tolerance for fats follows.

A flat blood sugar curve is perhaps pathognomonic of active celiac disease.

The successful treatment of celiac disease requires a high protein diet, of which the basis is protein milk, to which is added carbohydrate in the form of ripe banana powder and ripe banana; other fruits and some vegetables are tolerated to a degree. No nutritional relapse occurs with this diet.

A relapse not due to an acute infection is always due to the introduction of some carbohydrate other than that of banana, or rarely some untolerated fat.

The banana contains all vitamins except D, hydrolyzes starch, transforms the intestinal flora and produces starch-free alkaline stools.

Vitamin D must be used as the concentrate, or viosterol, and not as cod liver oil, and for anemia some form of iron must be given.

The prognosis in cases of celiac disease under this treatment is excellent; the patients attain full stature and are capable of using a normal diet.—SIDNEY J. HAAS, M.D., *J. A. M. A.*, Aug. 6, 1932.

"Virulence Cycle" in Epidemics

Ancient clinicians used to feel that the demon responsible for a specific epidemic hibernated in the underworld. Then, emaciated and ravenous, it fought its way past the holy ramparts into the city, where it fed first on defenseless infants, later on the stronger adults. Finally, satiated, it lost its lust for human flesh and retired for another hibernation. Modern clinicians consider this merely a fantastic explanation of the observed course of epidemics. However, L. T. Webster asserts that many of our current epidemiologic theories are nothing more than thinly disguised paraphrases of this ancient demonic metaphor.—*J. A. M. A.*, September 17, 1932.

Case of Acute Intussusception With Spontaneous Recovery

AARON BORTIN, M.D.

Roslyn, N. Y.

ACASE has recently come to my attention which I believe, is sufficiently infrequent, or rather infrequently noticed, to be of general interest.

The patient is a young boy of five years, N. M., whose past and family history is entirely negative except for the usual childhood ailments.

On June 20, he complained of slight abdominal cramps, generalized in character, but sufficiently mild not to interfere with his play.

The following morning, about 11 A. M., he was given half a tablet of Ex-Lax for his "upset stomach." A watery stool followed about one-half hour later. About one o'clock, he experienced paraumbilical cramps which caused him to shriek with pain. At this time I saw the patient, who appeared in moderate shock. His temperature per rectum was 98, pulse 90; general physical examination including a rectal examination was negative except for the abdomen, which, although soft and slightly distended, with no points of tenderness, presented a mass slightly to the right of the umbilicus. This mass, about four inches in length, not tender to palpation, was apparently intestines. No herniae were found.

The boy then started to vomit partly digested food material in a more or less projectile manner, and continued to do so at between five and ten minute intervals. The severe cramps were followed by periods of remission which were entirely free from pain.

From the above description it will be seen that a definite diagnosis could not be arrived at. The question whether ordinary intestinal colic, partial intestinal obstruction, or intussusception were concerned

here led me to adopt the policy of cautious expectancy. No opiate was given. A hot water bottle to abdomen and a medium high soap suds enema (one quart) were prescribed. The enema return was very offensive and reacted positively to the benzidine test. No ova or parasites were found on microscopic examination of the stool.

About three o'clock, when I again saw the patient, the periods of remission from pain had been prolonged; the pain itself was less intense; and vomiting less frequent (three times in two hours). I could no longer palpate the mass at this time, and prescribed a sodium bicarbonate enema (one pint). The return revealed no fecal material, but a moderate amount of blood and mucus.

I realized at this point that we were dealing with what, most reasonably, appeared to be an acute intussusception. The acuteness of the symptoms having abated, it was thought best to carry on conservatively. Recovery was uneventful.

The acute picture of severe abdominal cramps, with persistent vomiting, the presence of blood and mucus in the discharges, with the presence of a mass in the abdomen suggests the diagnosis of intussusception. Occurring in a child, more often in the male than in the female, that diagnosis is rendered still more likely.

That spontaneous reduction occurred there can be no doubt. As to why it occurred, I can offer no satisfactory reason, as I do not feel that any of the therapeutic measures were in any way responsible for it.

Main Street.

Causes of Drug Addiction

Ease of access to habit-forming narcotic drugs must be considered an important causative factor in addiction. The more important precipitating or immediate causes of addiction, however, are related to the previous uses of such drugs in medical treatment, to self treatment for the relief of pain, to recourse to drugs during emotional distress, to the influence and association with others who are habituated to their uses, to overcome drunkenness, and to indulgence for the sake of experience, curiosity, a thrill or bravado.

The more important predisposing or underlying causes of addiction are related to the inherent constitutional make-up of the individual. The nervously unstable person is more prone to embrace the habitual use of narcotic drugs than one with a stable constitution. This is one way of saying that those with mild psychic disorders, or those of faulty personal constitution or mental make-up, constitute a variable proportion of addicts. An approach to the partial solution of narcotic drug addiction must therefore take into account the mental hygiene factors involved.

Drug addiction, like chronic alcoholism, becomes established at a much earlier age than is ordinarily supposed. It is usually established at a later period in life among those who handle drugs professionally or legally than among those unauthorized to handle narcotic drugs for professional or business reasons. In every hundred addicts authorized to deal in drugs, approximately four become addicts before 25 years of age, seventeen before 30 years, and forty-seven, or less than half, before 40 years of age. Among addicts unauthorized or unregistered to handle narcotic drugs for professional or business reasons, almost half acquire the habit before 25 years of age, and two thirds before 30 years of age.

The causative factors of addiction are found to be different in degree when comparison is made between those unauthorized to deal legally in narcotic drugs and those authorized to handle them. Among addicts licensed to deal in narcotic drugs for professional or business reasons, and who are accessible for study and observation, more than three fourths attribute their addiction to the previous use of these drugs in medical treatment or to self treatment for the relief of pain. Relatively few attribute their addiction to contact and association with other addicts, to a desire for experience, to satisfy curiosity, to obtain a thrill, or to their use during emotional distress. Among the unregistered group, almost half attribute their addiction to contact and association with other addicts. A proportion attribute their addiction to a desire for experience or bravado, to satisfy curiosity, to obtain a thrill, to allay emotional distress, or to overcome drunkenness. A proportion, however, attribute their addiction to the previous use of drugs in medical treatment and to self administration for the relief of pain.—WALTER L. TREADWAY, M.D., *J. A. M. A.*, July 30, 1932.

Clinical Teaching of Preventive Medicine

Dwight O'Hara, Boston (*Journal A. M. A.*, Aug. 27, 1932), presents the fourth year teaching of preventive medicine at Tufts College Medical School. Patients sick in their homes and cared for by the fourth year students, under supervision, are used as clinical material. The students have conferences with clinicians who are interested but not specifically trained in the science of public health. The opportunities for and the limitation of preventive measures are thus pointed out under the actual circumstances that confront the practicing physician. A few specific situations are discussed.

Cancer*

Department Edited by JOHN M. SWAN, M.D., F.A.C.P.

EXECUTIVE SECRETARY, NEW YORK STATE COMMITTEE OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

Early Signs of Carcinoma of the Mammary Gland

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PAGET'S disease of the nipple is most frequently seen in women over 40 and is usually unilateral. Most often it begins as a mild eczematous condition of the nipple, which may spread over the areola and even part of the breast. Later it may become ulcerated or erosive. In the more advanced stage there may be retraction of the nipple. Occasionally before any dermic lesion appears there is a serous exudation. It has been conclusively proven that Paget's disease of the nipple is always associated with cancer of the upper parts of the milk ducts.

This disease is a true epidermotropic cancer and the Paget cells formed in the epidermis are true cancer cells.

Pautrier says—Every time a histologic examination was performed under good conditions a deep seated cancer was found either canalicular or mammary.

As a rule Paget's disease of the nipple often begins with a serous exudation, sometimes with a slightly serosanguinous secretion.

At first there is a moderate scaling, a slightly verrucous state until in the course of a few months the lesion occupies the whole nipple or spreads over part of the breast. The diagnosis of eczema is most often made.

* All the contributions under this department heading are parts of the Clinical Conference which was held at the Seventh Annual Meeting of the New York State Committee of the American Society for the Control of Cancer in Rochester in December, 1931.

A more thorough examination of the lesion shows the ulcerated zone is mottled with whitish epidermic patches that are far more sharply circumscribed than eczema and that it is often surrounded by a thin squamous border or a regulated border. Palpation will convince one the lesion is markedly infiltrated.

If one bears in mind that eczema of the nipple is symptomatic of itch or of pregnancy in eight cases out of ten, if one is sure that neither the physiologic status nor the parasite is present and if one considers the unilateral localization, the age of the patient and the duration of the disease the diagnosis must be Paget's disease.

At a more advanced stage the retraction of the nipple is complete and is replaced by an infiltrated nodule.

It is the consensus of opinion that Paget's disease of the nipple is a true cancer from the beginning. The Paget's cells found in the epidermis are true cancer cells from the beginning, identical in appearance with the intraduct cancer cells. It is an epithelioma that has arisen in the first milk ducts near their mouths.

Finally Paget's disease should never be considered a pre-cancerous lesion but always a carcinoma of the nipple symptomatic of a deeper carcinoma of the breast and early and total removal of the mammary gland is always indicated.

Early Signs of Carcinoma of the Mammary Gland

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THERE are no early symptoms of cancer. The early sign is that of a nodule.

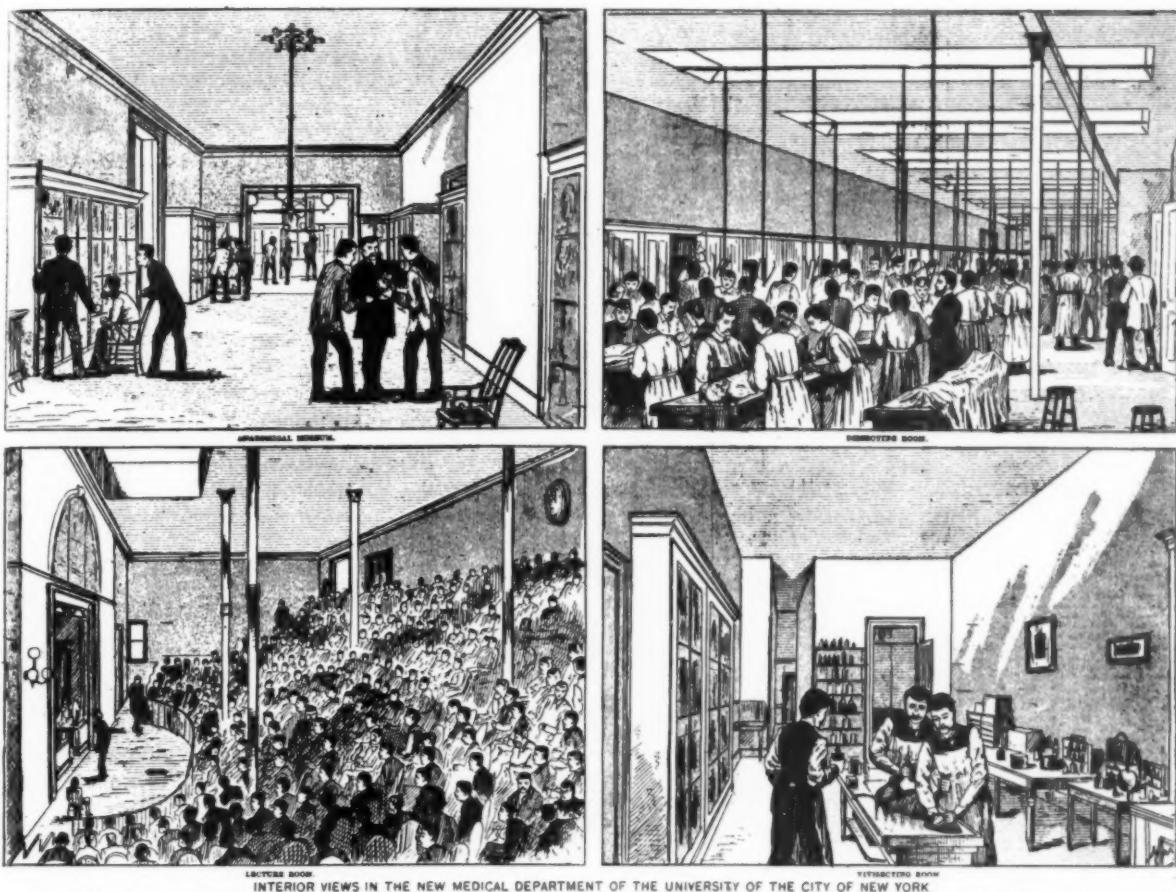
An isolated mass or nodule in a breast, with or without chronic mastitis, should be subjected to excision and a rapid, frozen section microscopic study. Subsequent procedures should be immediate, based upon the pathological report.

Bloody or serous discharge from a non-lactating breast may or may not mean cancer. With such signs present, however, with or without a palpable mass, extreme caution should be exercised before stating that cancer is not present. Transillumination has pitfalls and may be of positive aid, but negative illumination is not presumptive evidence of cancer being absent. The best solution is biopsy.

In spite of insurance statistics, a family history of cancer and of tumor formations must have a bearing upon our final decision in doubtful cases.

Papillary intracystic fibro-adenoma: "The usual factors are of a single or multiple rounded tumor, movable beneath the nipple, which may be retracted, of slow growth and often accompanied by a serous or bloody discharge from the nipple. Most frequently seen after menopause." Out of twenty cases Greenough found malignancy in three (Ewing). We cannot tell from any present method when malignant change has taken place.

It is possible to have carcinoma of the breast with involvement of an axillary lymph node with no palpable change in the breast itself.



INTERIOR VIEWS IN THE NEW MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK

The above very interesting old print, entitled "Interior Views in the New Medical Department of the University of the City of New York," is from the *Daily Graphic* of September 18, 1875. The *Daily Graphic* was the first daily illustrated newspaper.

ever published and copies of it are now exceedingly rare. This and a number of other prints were formerly the property of the late Dr. William H. Egle, the famous Pennsylvania historian.

Mrs. W. H. C., aged 45 years, with no family history of cancer, in February, 1926, noticed an enlarged gland in the right axilla. March 2, 1926 (Dr. C. C. T.): "No palpable mass or abnormal change in the right breast, some soreness and stinging sensation, enlarged axillary lymph node." X-ray treatment of breast. About May 1, 1926, patient came to a cancer clinic. At this time there was no palpable mass or other abnormality in the right breast. There was an enlarged axillary lymph node. A few days later the axillary lymph node was removed under local anaesthesia and found to be a metastatic carcinoma. The patient refused operation until January, 1927, when, just above the nipple, encroaching upon the area of the areola, a definite nodule, 1 cm. in diameter, was found. It was not adherent to the skin nor was the nipple retracted. There were no other nodules. After pre-operative X-ray therapy a radical operation was performed. This small nodule was the only demonstrable lesion in the breast. The axillary glands were all involved.

To repeat—axillary lymph node enlargement may be the first evidence of breast cancer. Biopsy of enlarged axillary lymph nodes is therefore indicated.

Acute inflammatory carcinoma of the breast usually presents an evenly enlarged breast, with the dull reddish color of inflammation and increased heat.

The breast will be more or less painful or tender. The adjacent lymph glands will be enlarged. The whole process resembles an acute inflammatory process, except that the leukocyte count is not much increased. (Mrs. H., Polymorphonuclear neutrophiles, 55 per cent; Lymphocytes, 45 per cent.)

The course is not toward abscess formation or resolution, but becomes rapidly worse and may cause early edematous swelling of the arm of the affected side. This is a hopeless condition, and X-ray therapy, while offering little hope even for palliation, is the best treatment. Surgery may be followed by failure of healing. The course, if extremely rapid, is accompanied by considerable suffering.

Diabetes and Pregnancy

1. The glucose tolerance of a pregnant diabetic woman becomes progressively diminished with advancing pregnancy.
2. There occurs in the first few days of the puerperium a transitory period during which the sugar tolerance increases to such an extent that the patient can be considered non-diabetic. This period, in our experience, lasts only from one to three days.
3. The experience of pregnancy seems to permanently reduce the sugar tolerance of a diabetic.
4. Diabetes is no contraindication to pregnancy, per se, for under modern methods of management, no complications occur which are intrinsically the result of the diabetic state.—William S. Collens, M.D., *et al.*, *N. Y. State J. M.*, July 1, 1932.

Economics

Department Editor: THOMAS A. McGOLDRICK, M.D.

CHAIRMAN COMMITTEE ON ECONOMICS OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS, BROOKLYN

Costs of Sickness and Medical Care

ALTHOUGH the work of investigating the costs of sickness and medical care by committee and individuals has not been completed, much of the information already obtained and published has contributed valuably to our knowledge of the subject. We have learned that the annual total cost of medical care is less, by billions of dollars, than the amount spent for such luxuries as cosmetics, or candies, or tobacco, or the gasoline used in pleasure cars. We have been shown that the amount for services of doctors is less than one-third of the total cost of the care of the sick. For the great majority of the people doctors' bills are burdensome, not because of the amounts of money involved, but because of the incidence of disability at uncertain, irregular and unexpected times. Most important still, no financial preparation has been made for the occurrence of sickness, hospital and nursing needs for any time.

The average individual total cost of sickness, including doctors, dentists, druggists and nurses, is \$25 per year (Metropolitan Life Report).

The actual total amount necessary for all medical costs, if spread over large groups of people, has been placed by different investigators between \$8 and \$15 per year, while others, who include communal expenditure for public health, place it at \$50 per year per person.

Not only do the great majority not save for possible sickness but they will not. They will save for the purchase of a radio, or an electric refrigerator, for replacing home furnishings, or a pleasure car, for the higher education of their children, or, at times, for the ownership of their own homes. For all these and many other things most people do save as the hundreds of millions of dollars in our Christmas Funds and the billions of dollars in the Savings Banks of this State amply testify. The arguments set forth by our banks to encourage thrift are sound, logical and successful, but among these arguments the one of possible sick need is least effectual. Sickness or injury may not come, it is believed, or if it comes it will not be serious, or something will occur to take care of it.

To ensure to people the ability to command adequate

care in sickness several banks and private corporations have instituted plans of saving that will secure payment to hospitals, nurse and doctor. On the promissory notes of the patient the money needed is advanced, repayment being made in monthly instalments, usually of 10%. The cost of the loan to the applicant and to the doctor, the number of endorsers or co-makers, which in some cases includes the doctor, the financial responsibility of private companies engaged in this business, and the actions taken on defaulted payment, vary in detail in these organizations. Some require that in case of defaulted payment, the doctor must return the money received by him many months earlier.

The loan plan idea is good and there is a need it can satisfy. The fact that one of our largest banking institutions loaned in this city on such promissory notes, for the payment of sickness costs, over \$13,000,000 in three years is sufficient evidence.

In the selection of such companies there is need for caution. After much deliberation the Medical Society of the County of New York has endorsed one. Other County Societies are still studying the subject.

At the last annual meeting of the Medical Society of the State, the Economics Committee submitted standard minimum requirements for loan companies soliciting the approval of organized medicine. These requirements, uniform and complete, would facilitate the work of the different county societies and the companies themselves.

In all these schemes the charges must ultimately devolve on the patient. In some companies these charges reach 35%, and the best of them charge at least 16%, although an established bank will lend the money at less than 6%. It is claimed as an offset to this that private companies will lend the money "almost instantly", while the bank may take four or five days for verification of statements and routine details.

With his knowledge of the different plans now offered, and to be offered, the doctor will continue to be a guardian of his patient's welfare and to protect him in his time of trouble from legal pitfalls and usurious interest rates.

New York City as an Employer of Medical Service

SIXTY YEARS ago in the then City of Brooklyn the position of Health Inspector was desired by nearly every doctor there entering the practice of medicine. Although irregular in the hours of its required service it did not consume all the doctor's time, and the salary of \$1,200 per annum tided him over the years of privation and waiting for patients.

The requirements for the practice of medicine in those days were neither numerous nor rigid. The student presented only such credentials of previous education as his particular medical school might require. The course of medical education was two terms of five to six months each, and by a careful shift in medical schools the two terms could be completed in less than twelve months. Hospital internship was infrequently sought. State Ex-

amining Boards for Licensure were not in existence, and civil service examinations for municipal positions were disregarded or manipulated.

In these days to secure such positions the doctor must have had an education, preliminary to his medical studies, that included part of the general college course; he must spend four years of eight months each in a rated medical school; he must have had at least one year's internship in a hospital and have passed the examination by the State Board of Regents before he becomes eligible to take a strict, honest competitive examination for that position in the Health Department corresponding to the one of sixty years ago.

The medical men of the Health Department have deserved and received praise for their share in the reduc-

tion of mortality, the control and prevention of epidemics and the improved general health. Besides praise, however, the doctor has received little else.

Despite the attainments brought to his work, his fidelity to duty and the fact that the purchasing power of the dollar is 50% less than in those earlier years, the doctor capable enough to now secure the Health Officer position will receive a remuneration one hundred dollars per year more than his professional brothers of half a century ago.

A few years ago the New York Academy of Medicine through its Public Health Committee was asked by some departments of the City Government to make a survey of all the medical positions and to formulate a plan for grading and equalizing salaries.

The Committee made a study of these positions, the length of time daily required, the quality and usefulness of the services rendered, and the remuneration given. Comparative studies were made of other professions and of laborers unskilled and skilled in the City.

The doctors, it was found, were unjustly treated and underpaid, both from the standpoint of the quality of services rendered and the prevailing rates in non-professional occupations. No suggestions were offered for all those doctors working without pay in the city institutions. They must continue to work at the same rate. Many other valuable suggestions were made by this Committee, but as their recommendation would mean more money for the employed doctors, and as doctors had no organizations to press demands for recognition, the report was promptly "filed".

Despite all the enthusiasm for preventive public health measures, and with the knowledge that "public health is a purchasable commodity," statistics furnished through the American Medical Association show that of all the departments of medicine public health and tuberculosis specialists are most poorly paid of all.

When the Medical profession recently appealed to the City authorities for the few hundred thousands of dollars which certain doctors in City hospitals earned in Workmen's Compensation cases and which the City collected from the insurance companies and retained, it was told that it would prove "embarrassing" for a public official to suggest that the moneys be returned to the rightful owners.

The fixing of the salaries during the past half-century for all the 500 physicians in the employ of the municipal government and the means that were taken to secure increases in pay make a story interesting to the profession. Every instance of increased pay has been obtained through the influence of non-professional political leaders or the personal seeking of prominent friends. The proponents of the different forms of State Medicine would find in this part of the history of the richest city in the world a demonstration of how gratefully and munificently physicians would be paid under their proposals, a demonstration far different from their anticipations.

These thoughts are reawakened in this time of financial depression by the public efforts made by politicians seeking or wishing to retain office to reduce the costs of government. A few wantonly self-increased salaries are paraded before the public and the need for reduction shown. Then among the very first reductions threatened are those in the Department of Health and of Hospitals and those of Medical Examiners. The salaries of all doctors in these departments receiving over \$2,000 are placed in jeopardy. Full time resident physicians in the hospitals will perhaps be continued with *no* salaries, and the activities of the Health Department possibly greatly curtailed.

In order that new subways, built in times of highest

costs, may be run at the same passenger rate as the subways built in times of lowest cost, a great part, \$50,000,-000, of the capital expenditure is placed in the annual budget of each of these years rather than spread over a long period of years. A praiseworthy purpose, indeed.

If \$49,000,000 of that item, however, were taken out of the annual budget, and other usual economies of common sense made, these medical salary cuts would not need to be perpetrated and the medical profession, in addition to its voluntary services to the city, would not be required to contribute excessively to the construction of our transportation systems and extravagant building operations.

The Anaemias of Pregnancy

Many writers have been trying to classify the anaemias of pregnancy, and have postulated states of the bone-marrow to explain the various blood pictures found. Advance in other fields of haematology has shown, however, that many bone-marrow lesions are secondary to disturbances of gastro-intestinal function; notably in Addisonian pernicious anaemia, tropical megalocytic anaemias, and the various anaemias associated with idiopathic steatorrhoea. It is pertinent therefore to consider how far pregnancy anaemias may be associated with similar disorders.

Pregnancy seems to act as the extra strain necessary to produce anaemia either of the hypochromic or hyperchromic megalocytic type in patients who have a predisposing cause in the form of a disturbed gastric function. Ivy and his co-workers showed that in gastrectomised dogs anaemia developed only when pregnancy intervened. Wilkinson has more recently reported two cases of typical Addisonian pernicious anaemia appearing during pregnancy in women who were known to have achylia, and belonged to families with an apparent tendency towards pernicious anaemia. Strauss, in a study of 35 pregnant women with a haemoglobin below 45 per cent and no other complications, found 19 with complete anacidity after histamine, and 12 with little or no free hydrochloric acid after alcohol test-meals. It has been readily assumed that the demand of the fetus for iron, and possibly other haemopoietic substances, was the sole cause of the "physiological anaemia" of pregnancy, and played its part in the development of the more severe forms. Strauss, however, has brought forward evidence which suggests that pregnancy may have an influence on haemopoiesis in other ways. He found on examining the gastric juice of 12 normal women that more than half of them showed during pregnancy a decrease or absence of free hydrochloric acid, which returned to normal on delivery. Those with post-histamine anacidity developed the most serious grade of anaemia. This suggests that pregnancy definitely affects gastric function, and in so doing disturbs the body's power to absorb and digest essential factors. Such evidence indicates the danger of accepting Adamson and Smith's view that what they call a moderate anaemia with a haemoglobin as low as 50 per cent is physiological, and does no harm to mother or child. Strauss has further shown that the hypochromic anaemia, readily relieved by iron, is more severe in patients with a bad dietary history than those with a good diet. The average loss of haemoglobin in the former group was 12 per cent as compared with 5 per cent in those with both good diets and good gastric secretion.

It is clear therefore that gastro-intestinal function plays a definite part in the production of pregnancy anaemias. Pregnancy may in itself produce a disorder of gastric function which apparently hinders the absorption of essential factors, or when such a disorder is already present may, by the additional demands of the fetus, so increase an existing tendency as to produce definite anaemia. Since mild degrees of anaemia are so common as to be called the physiological anaemia of pregnancy, there is here a profitable field for experimental investigation rather than armchair hypothesis. Iron, liver or its substitutes are of therapeutic value according to the type of anaemia, but the possibility of prevention, of the hypochromic forms at least, by adequate diet and possibly prophylactic doses of iron and hydrochloric acid should not be forgotten.—*Lancet*.

Advance in Syphilology

The *Treponema pallidum* was discovered by Max Schaudinn in 1905, the Wassermann reaction followed in 1906, in 1910 Ehrlich introduced the salvarsan treatment, and in 1917 Wagner von Jauregg of Vienna originated the treatment of general paralysis of the insane by induced malaria. Rolleston, Sir Humphry: The Changes in the Medical Profession and Advances in Medicine During the Last Fifty Years, *Brit. M. J.* 2:132 (July 23) 1932.

Contemporary Progress

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Otology

Treatment of Chronic Middle Ear Infection

D. M. Lierle and R. A. Sage (*Annals of Otolaryngology, Rhinology and Laryngology*, 41:359, June, 1932) report experiments made at the University of Iowa Hospital to determine the value of the "zinc ionization" treatment devised by Fried for chronic suppuration of the middle ear. From their results they conclude that the possibility of the deposition of metallic zinc in living tissue is "remote and open to question." The use of small electric currents in the treatment of middle ear infections is of doubtful value as far as their bactericidal action is concerned. *In vitro* experiments with various organisms subjected to the action of zinc sulphate with and without the 4 milliamperc direct current showed that the bactericidal action of the zinc sulphate alone was fully as effective as the combined action of the zinc sulphate and the current. *Pneumococcus* was readily destroyed by zinc sulphate; *B. coli* and *Staphylococcus* were the most resistant of the organisms studied. From these findings the authors are convinced that the beneficial results of the zinc ionization treatment in middle ear infections are due to the destruction of the bacteria by the zinc sulphate.

J. D. McLaggan (*British Medical Journal*, 2:94, July 16, 1932) distinguishes five types of chronic suppurative disease of the middle ear. In the first type the discharge is due to recurrent infection of the nasopharynx; in this type the discharge is mucous and later muco-purulent, and the ear drum ruptures easily at each recurrent attack. In these cases the chief indication for treatment is to keep the ear clean by gentle mopping or by syringing, to make soothing applications to the mucous membrane, and to treat the primary focus of infection in the nose or the throat. In the second type in which the ear discharge is due to chronic infection of the mastoid antrum and its air cell, an operation is indicated. In the third type, in which the disease is located chiefly in the attic, the best treatment is to open the attic by the epi-tympano-mastoid operation, syringe out the cholesteatomatous debris and drain into the meatus. In the fourth type, in which the disease is limited chiefly to the middle ear or tympanic cavity itself, the author has found the zinc ionization treatment with zinc sulphate most useful. This method has one special advantage in that it does away with treatment at home which is usually not efficiently carried out. In the fifth type of case, where there is massive infection of the middle ear cleft, there is usually a history of profuse purulent discharge, often blood stained, and foul-smelling, with repeated acute attacks of pain, slight fever and tenderness over the mastoid. In these cases the author considers that a radical mastoid operation is indicated, especially where the acute attacks are frequent and there are symptoms of impending inner ear or intracranial involvement, or evidence of progressive bone necrosis.

Otomycosis

K. Gill (*Archives of Otolaryngology*, 16:76, July, 1932) is of the opinion that otomycosis occurs more frequently than it is recognized. It is important that it be correctly diagnosed, and the diagnosis should be established or ruled out by microscopical examination of the smear, and if necessary by culture, in all cases of persistent eczema or recurrent furunculosis of the auditory canal, and also in atypical or long-standing cases of otitis media with a discharge. Since otomycosis is prone to occur after apparent cure, patients should be kept under observation for a long time. In treatment, the author emphasizes "four objectives:" To cleanse the external canal mechanically from the meatus to the drum head carefully, avoiding trauma or maceration of the skin, to reduce the local inflammation and allay pain; to limit sporulation; and to leave the parts in such a condition as to prevent recurrence. He has tried many drugs recommended for otomycosis and has found many of them ineffective. He now uses only a few drugs, of which the most

effective is metacresylacetate (cresatin). This causes an exfoliation of the top layers of the epithelium, in which the fungi develop, allays pain, prevents sporulation, and acts against secondary infection. Phenol and iodine in liquid petrolatum are effective in some cases; and alcoholic solution of mercurochrome and gentian violet in conjunction with the quartz lamp has also given good results. He has not found the administration of potassium iodide internally to be of any advantage. The ear should be kept dry to prevent recurrence.

Pathology of Deaf-Mutism

J. S. Fraser (*Journal of Laryngology and Otology*, 47:538, August, 1932) discusses the pathology of deaf-mutism as observed in his own specimens and described by others. In the first place deaf-mutism is classified as congenital or acquired. The congenital type may be either sporadic, of frequent occurrence in England, or endemic (chiefly in Switzerland). Sporadic congenital deafness is of various pathological types. There may be aplasia of the entire labyrinth as described by Michel, which is very rare. More commonly there is malformation of the bony and membranous labyrinth with Corti's organ absent or showing only an embryonic form. One of the author's cases is of this type, although the left ear in this case shows almost total absence of the labyrinth, approximating the Michel type. The malformation may affect both the cochlear and the vestibular apparatus (very rare). The most common type of sporadic congenital deaf-mutism is that with sacculo-cochlear malformation and the vestibular apparatus intact and reacting normally. One of the author's cases was of this type; and he also presents specimens of a similar type from a congenitally deaf white bull terrier. The endemic congenital deaf-mutism of Switzerland is associated with cretinism. Acquired deaf-mutism may be due to fracture of the cranial bones involving both labyrinths occurring during the early years of life. In deaf-mutism due to congenital syphilis, one group of observers believe the congenital deafness is due to syphilitic meningitis and secondary neuro-labyrinthitis; another group believe it to be due to syphilitic otitis media that does not clear up, but breaks through the labyrinthine windows or involves the bony capsule. In the author's case of deaf-mutism due to congenital syphilis there were pathological changes in both the middle ear and the inner ear. Deaf-mutism may result from labyrinthitis following purulent meningitis due to various types of infection; of the author's 2 cases one was due to epidemic cerebrospinal meningitis, and one to measles and pneumonia with meningitis. Deaf-mutism may also arise from labyrinthitis secondary to middle ear suppuration in very young children.

Ear Examination in Tumors of the Acoustic Nerve

P. Northington (*Laryngoscope*, 42:506, July, 1932) reports a study of 8 cases in which a diagnosis of unilateral acoustic nerve tumor was made prior to operation and confirmed by the operative findings in 5 cases, while no acoustic nerve tumor was found in 3 cases. He concludes that where there is a suggestive history of acoustic nerve tumor, functional ear tests should be made at an early date. All the cases of verified acoustic nerve tumor in his series had unilateral deafness, which was of moderate degree in 2 cases and marked in 3 cases. The results of the rotation test were not reliable in indicating vestibular involvement; but the caloric tests were dependable. The findings most characteristic of acoustic nerve tumor were found to be: Impairment of cochlear function and much greater impairment of vestibular function (sometimes total loss of vestibular reaction to temperature) on the side of the tumor; slight impairment of the vestibular reactions in the face from position on the opposite side.

Audiometers in Clinical Work

C. C. Bunch (*Annals of Otolaryngology, Rhinology and Laryngology*, 41:712, September, 1932) notes that while the audiometer is

often regarded as an instrument for research work, several types of audiometers have recently been installed in the Otological Clinic of the Washington University Medical School, St. Louis, Missouri, for clinical work routinely on all patients. These audiometric tests have been found useful not only as diagnostic tests, but also as a method of determining the progress of ear disease under treatment. The audiogram is not sufficient alone for the diagnosis of ear conditions, but it is of definite value in diagnosis, provides a useful graphic record, and gives information of value in regard to the progress of the patient. Illustrative audiograms are presented.

Rhinolaryngology

Roentgen Therapy of Epitheliomas of the Throat

H. Coutard (*American Journal of Roentgenology*, 28:313, September, 1932) reports the treatment of epitheliomas of the tonsillar region, hypopharynx and larynx with the Roentgen-rays at the Radium Institute of the University of Paris, France. The cases treated included 46 epitheliomas of the tonsillar region, 89 epitheliomas of the hypopharynx and 77 epitheliomas of the larynx. All these cases were treated in 1920 to 1926; a recurrence was never observed in cases free from local signs of the disease for fifteen months after treatment in this series, but in a later series, treated since 1926, local recurrence occurred in 2 cases at the end of the third year. Of the total of 212 cases treated, 157, or 74 per cent., died within two years after operation, and 55, or 26 per cent., were cured of the primary lesion. Cancers of the larynx showed 32 per cent. two-year cures, cancers of the tonsils, 26 per cent. two-year cures, and cancers of the hypopharynx 20 per cent. two-year cures. The percentage of cures remained the same for cancers of the larynx and of the tonsils at the end of three years, but had diminished to 14 per cent. for cancers of the hypopharynx because of the development of metastases. The author concludes from his results that Roentgen-ray treatment of epithelioma of the tonsils gives very satisfactory results considering the extensive development of the growth and the involvement of the lymphatic glands in the cases treated. Since 1926 the percentage of local cures has been raised to 46 per cent. The cancers of the hypopharynx treated were all inoperable. In epitheliomas of the larynx situated on the cord, glottis or even subglottis with little infiltration of the laryngeal muscles, radiation gives excellent results; with small cancers on the vocal cord with infiltration of the muscles, surgical excision followed by Roentgen-ray therapy gives the best results. Roentgen-ray treatment of the glands gives good results if the involvement is unilateral and there is no associated infection.

Laryngeal Pathology

E. F. Ziegelmann (*Western Journal of Surgery*, 40:483, September, 1932) is convinced from his study of laryngeal pathology, that acute laryngitis and its sequel chronic laryngitis are due in a large percentage of cases to infection of the nose and nasal sinuses. Early and persistent treatment of nasal and paranasal infection is "one of the great protections" against disease of the larynx. In acute laryngitis, the pathological changes consist as a rule in exudation and cell infiltration; the inflammatory process rarely goes to the stage of suppuration and necrosis in the larynx. In chronic laryngitis the chief pathological change is the formation of connective tissue with disturbed function; polyps, granulation tissue, and necrosis are relatively rare. With a persistent irritation of the larynx by postnasal discharges a chronic inflammatory process is likely to result. If it involves the true cords, as is frequently the case, changes in the voice, especially hoarseness, results. Since a persistent chronic process in the larynx may show malignant changes, all cases of chronic laryngitis, and especially those with involvement of the true cords (the most frequent site of laryngeal cancer) should be carefully examined and biopsy studies made. Such studies should be made on serial sections and not on a single section. Cancer of the larynx, especially on the vocal cords, can be satisfactorily treated with good prognosis for permanent cure if diagnosis is made early.

Electrocoagulation in Hypertrophy of Lymphoid Tissue

A. R. Hollender (*Laryngoscope*, 42:622, August, 1932) reports the use of electrocoagulation in the treatment of hypertrophy of the faecal tonsils and of the lymphoid tissue of the pharynx. When marked hypertrophy of the faecal tonsil causes symptoms the author has found electrocoagulation superior to the cautery. The active electrode is a needle which is inserted into the mass at various points, without attempt at deep destruction; one lingual tonsil is treated at a time, and one or more treatments may be used for each tonsil as desired. The slough comes away in a week and during this period a mild antiseptic mouth wash is used. When hypertrophy of the lymphoid tissue of the pharynx is not marked, removal of the local cause or of systemic factors results in improvement; but with marked hypertrophy and persistence of symptoms local destruction is indicated. This can

best be done, the author has found, by the electrocoagulation puncture method.

Chest Complications of Sinus Disease

In a study of 1,344 cases of non-tuberculous disease of the lungs, J. G. McLaurin (*Annals of Otolaryngology, Rhinology and Laryngology*, 41:78, September, 1932) found that 464 showed deviated septums, spurs and hypertrophied tonsils, 51 of whom had total nasal obstruction most of the time. Another group of 582 patients had constant nasal discharge; in 105 of this group one or more of the sinuses was proven to be definitely infected; and in 427 cases there was demonstrable postnasal discharge. The author concludes that chronic sinus disease is undoubtedly "a constant menace to the lungs." There are several possible routes by which infection reaches the lungs from the sinuses, and in most cases it is probable that the infection passes downwards by more than one of the routes. The four possible routes are: Lymphohematogenous; hematogenous; direct aspiration of infectious material into the trachea and the bronchial tree—droplet infection; and by direct continuity of tissue. The author's own experiments have shown that lipiodol injected into the ethmoids and sphenoids by the Proetz method passes into the bronchi, as shown by subsequent X-ray examinations. This leads him to conclude that aspiration infection "plays a very considerable part" in the production of chest complications associated with sinus disease. While he considers this route of "paramount importance," infection is also carried by the other routes mentioned and especially by the lymphatic-hematogenous route. The author is of the opinion that chronic sinus infection is also an important factor in bronchial asthma and that in the allergic type of asthma the presence of sinus infection increases the permeability of the membranes to the action of the foreign protein.

Action of Ephedrine and Epinephrine on the Nasal Turbinate Mucosa

H. H. Burnham (*Canadian Medical Association Journal*, 27:168, August 1932) reports a study of the action of ephedrine and epinephrine on the mucosa of the nasal turbinates. He finds that when ephedrine is applied to one area of the nasal turbinate mucosa and epinephrine to another, the mucosa on the ephedrine side retains a pinker shade and shows the following variations: The usual normal redness is little affected; after shrinking of the turbinate tissues takes place there is a mottled appearance with reddish and paler areas. This is due to the contraction of the large blood vessels below the shrunken area, some being contracted more than others. This indicates that ephedrine has no direct influence on the capillaries and that the shrinking of the cavernous tissue of the nose occurs independently of the capillaries. The lack of unpleasant reactions after the use of ephedrine in the nose is probably due to the fact that it does not act directly on the capillaries. In the area treated with epinephrine (adrenalin), however, there was paleness rapidly developing into a blanched appearance followed by shrinking of the mucosa. When cocaine solutions are used for local anesthesia in the nose, epinephrine rather than ephedrine should be used, as by closing the capillaries as soon as absorption begins, the former limits absorption of the cocaine, while ephedrine does not have this effect.

Treatment of Vasomotor Rhinitis

L. E. Walsh (*Archives of Otolaryngology*, 16:83, July, 1932) reports 90 cases of vasomotor rhinitis treated by injection of alcohol into the sphenopalatine ganglion, using Ruskin's technic. The injection should always be given slowly. It caused pain which lasts only from fifteen to thirty seconds, and was followed by a swelling of the face within an hour or so. This swelling lasted from two days to a week, and as it subsided the nasal condition improved, sneezing was relieved and the watery discharge diminished. There was also some numbness in the roof of the mouth resulting from blocking of the anterior palatine nerve, but this cleared up in two to three weeks. Of the 90 patients treated, only 8, or 9 per cent., failed to improve. Twenty-seven, or 30 per cent., have been free from symptoms for one to six months; 28, or 31 per cent., for six to twelve months; and 27, or 30 per cent., for more than a year. In 4 cases nasal polypi were a marked feature; in 2 of these cases the polypi had to be removed surgically, but in the other 2 cases they atrophied to such an extent that removal was not necessary.

Gynecology

Hysterectomy and Artificial Menopause

J. V. Sessums and D. P. Murphy (*Surgery, Gynecology and Obstetrics*, 55:286, September, 1932) report a follow-up study of 91 women in whom a hysterectomy was done before the age of thirty-six. In 86 cases the operation was of the supravaginal type; in 5 the entire uterus was removed; the indications for hysterectomy were fibromyoma uteri and pelvic inflammatory dis-

ease; in all cases one or both ovaries had been conserved; none had been given pelvic radium or Roentgen-ray therapy. All the patients were followed up for at least a year; 82 per cent. for two years or more, and 52 per cent. for five years or more. A review of literature in regard to the time of onset of the menopause in women not operated upon, shows that 5.6 per cent. developed menopausal symptoms before the age of forty. In the authors' series, however, 43.9 per cent. showed menopausal symptoms before forty; and of these 92 per cent. did so within two years after hysterectomy. Thirty-six per cent. of the 86 women on whom a supravaginal hysterectomy was done, menstruated following operation. Menopausal symptoms before the age of forty were noted more frequently in women without menses than in those that continued to menstruate. The incidence of menopausal symptoms was also higher in women with only one ovary conserved than in those with both ovaries intact in the ratio of 5 : 3. The time of onset and severity of the symptoms was approximately the same whether one ovary was removed or both conserved. The authors conclude that hysterectomy definitely hastens the onset of menopause, and that where a hysterectomy is necessary in women under forty, as much endometrium as possible should be retained to favor the continuation of menstruation and both ovaries should be conserved whenever possible.

Hysterosalpingography in Sterility Studies

M. C. Sturgis (*American Journal of Obstetrics and Gynecology*, 24:355, September, 1932) states that at the sterility clinic of the Woman's Medical College, the Rubin test for tubal patency is used as a routine. Hysterosalpingography is employed when the Rubin test shows patency of the fallopian tubes, but this test, the palpitory findings, and other diagnostic methods have failed to indicate the cause of the sterility; and also in cases where the Rubin test shows tubal occlusion in order to determine whether the occlusion is unilateral or bilateral and its exact location. French lipiodol heated to about 100 deg. F. is injected into the uterus under manometric control; the pressure is never allowed to rise above 200 (mercury manometer). Roentgen-ray films are taken as a routine at the time of injection, at the end of six and of twenty-four hours. The roentgenograms show the shape, relative size and position of the uterine cavity; this visualization of the uterus is of definite value in the study of sterility, in addition to the visualization of the tubes, whether patent or occluded, and the localization of any occlusion. In addition, the injection of lipiodol may be of therapeutic value in cases of tubal occlusion as reported by several gynecologists who have used hysterosalpingography in the study of sterility. In the author's series, there was one case in which pregnancy followed hysterosalpingography without any other treatment for the relief of the tubal occlusion.

The Growth and the Symptoms of Uterine Cervix Carcinoma

In his study of carcinoma of the uterine cervix, H. Schmitz (*American Journal of Obstetrics and Gynecology*, 24:159, August, 1932) distinguishes four clinical groups, as follows: Group 1, the clearly localized group—the beginning nodule; Group 2, the doubtfully localized group, beginning ulcer and papilloma, which may have spread to one-half the cervical wall, mobility of the uterus diminished by loss of elasticity of tissue; Group 3, the invasive growth with involvement of the parametrium and lymph nodes, but parametria and glands movable; Group 4, the disseminating and fixed growth—the "frozen pelvis," invasion of neighboring structures (bladder, vagina or rectum), distant metastases. In group 1, the localized nodular growth, there are no definite clinical symptoms. Group 2 is characterized by "contact bleeding;" group 3 by hemorrhage and discharge; group 4, by hemorrhage, discharge and pain. Hemorrhage is the earliest symptom of carcinoma of the uterine cervix, discharge "the most repulsive and constant symptom," and pain "the most unfavorable symptom." Secondary or accessory symptoms may also develop from invasion of adjacent organs, compression of neighboring structures, toxemia due to septic condition of the cancer, and from cachexia. End results in the author's series showed 80 to 83 per cent. five year cures in group 1, a much lower percentage of cures in the other groups, even group 2 showing only 42 per cent. of five year cures. The early diagnosis of cancer of the cervix is, therefore, of prime importance. As the earliest stage is characterized by no definite symptoms, can be definitely diagnosed by biopsy only and arises on the basis of chronic non-malignant lesions of the cervix, women should report for examination after each labor or abortion and periodically thereafter, also at any time when such symptoms as leucorrhea, menorrhagia or irregular bleeding develop.

Organotherapy in Functional Disturbances of the Reproductive Organs of Women

E. Novak (*Southern Medical Journal*, 25:856, August, 1932) has found that in general the various old commercial preparations

of ovary or corpus luteum produce no objective results, and their "subjective effects are questionable, to say the least." A follicular extract, folliculin or theelin, has been produced that has undoubtedly physiological potency, but folliculin alone is not capable of producing all the endometrical changes essential for real menstruation; also the administration of even large amounts does not have any effect on the ovary, and its action is purely substitutional. No physiologically active preparation of corpus luteum extract, progestin, is yet available, as far as Novak has found, and he has used instead, anterior pituitary luteinizing substance. With the combined use of theelin and this anterior pituitary substance, given by injection, a certain percentage of women with amenorrhea can be made to menstruate. But the treatment has no effect on the ovary, and as a substitution therapy must be long continued; it also does not relieve sterility. Theelin has frequently been found of value in the relief of menopausal symptoms, especially the vasomotor flushes. The most valuable indication for progestin, or its substitute, the anterior pituitary luteinizing substance, is functional uterine hemorrhage, which is characterized by an absence of corpora lutea and progestin. The author has successfully treated a large series of cases of this type with the anterior pituitary hormone, since progestin was not available.

Splenectomy for Uterine Bleeding

S. Abernethy (*Southern Medical Journal*, 25:951, September, 1932) has found that in cases of uterine bleeding where there are no demonstrable pathological changes in the pelvic organs, a careful physical examination, including a blood count, should be made. It is not unusual to find in such cases that a definite blood dyscrasia is responsible for the bleeding; this is especially true of hemorrhagic purpura, in which uterine bleeding may be the chief, and, in the early stages, the only symptom. If a blood count is not made, the correct diagnosis is not made or is delayed. If hemorrhagic purpura is responsible for the uterine bleeding, the various measures for controlling the bleeding—such as a blood transfusion, administration of calcium salts, irradiations of the spleen with X-rays and radium, and intrauterine radium applications are usually ineffectual. When such measures fail to bring about permanent improvement splenectomy may be indicated. It is the general consensus of opinion that chronic thrombocytopenic hemorrhagic purpura is cured in most cases by splenectomy. Hence, in cases of uterine bleeding not controlled by other measures, in which the blood examination shows the low platelet count and non-retractile clot characteristic of purpura hemorrhagica, splenectomy should be done as soon as this diagnosis is made and the patient brought up to a point of "safe operability."

Destruction of Diseased Bartholin's Glands by Thermocautery

S. Serefris (*Deutsche medizinische Wochenschrift*, 58:1403, Sept. 2, 1932) notes that involvement of Bartholin's glands is a common complication of gonorrhea in women, and in its subacute and chronic stage is often unrecognized. The acute stage with abscess formation is usually easily diagnosed and treated by incision and drainage of the abscess. But if healing does not take place or this stage is not treated, a subacute or chronic inflammatory process results which is often responsible for the continuation of the gonorrheal infection. For this condition he (Serefris) has found the best treatment to be the destruction of the diseased glands and their ducts with the thermocautery at white heat, under local anesthesia with novocain. The diseased gland is easily located and held between the thumb and first finger of the left hand; repeated punctures are made with the cautery until the inflammatory mass is softened and practically disappears. When the gland is thus destroyed, the excretory duct is also destroyed by one or two punctures. This operation causes no bleeding and no pain. The cautery wound is small, and the usual treatment for gonorrhea can be continued without causing pain. The author recommends the use of this method in all cases about eight to fourteen days after incision for acute abscess of Bartholin's glands.

Obstetrics

Anemias of Pregnancy

L. R. H. Whithby (*Journal of Obstetrics and Gynecology of the British Empire*, 39:267, Summer No. 1932) notes that anemia in pregnancy is relatively common, but the severe forms are rare in temperate climates. He classifies the anemias of pregnancy as the "pernicious type" and the "iron deficient or chlorotic type." The pernicious type is further subdivided as the plastic type with high color in-

(Concluded on page 368)

Medical Times

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Advancing Our Physical Estimations

In a letter to the MEDICAL TIMES AND LONG ISLAND MEDICAL JOURNAL, Dr. John A. Burnett, of Weldron, Arkansas, makes the interesting suggestion that a greater recourse should be had by general practitioners, and by insurance companies, to some or all of those special tests of physical efficiency which have been so highly developed and integrated by surgeons and anesthetists as aids in evaluating operative risks.

These tests are, in general, Moots' blood pressure rule, the blood pressure fractional index test, the energy index, breath-holding test, basal metabolism, the blood picture, tests for acidosis, blood sedimentation test, coagulation time, the Froes newer shock index, tests of the excretory powers of the kidneys, the Cornell test for disclosing incipient nephritis, and the vagotonia and sympatheticotonia tests.

Dr. Burnett cites as useful references regarding practical details articles by A. H. Miller (*Rhode Island Medical Journal*, June 1930), F. H. McMechan (*Canadian Medical Association Journal*, December, 1925), and E. Klaus (*Anesthesia and Analgesia*, June, 1930).

But this appears to be an instance in which our knowledge marches ahead of applicability in our daily work, in anything like the full measure of desirability. Dr. Burnett himself, in speaking of the insurance companies, suggests that such tests might be reserved for applicants

seeking large policies, in which instances the time and costs involved would be well worth while. The same point would apply to general practitioners doing periodic examinations and making prognoses; that is, such expert and time-consuming work would deserve to be economically rewarded.

Nevertheless, we have here a splendid field for able practitioners of strong scientific bent, not primarily dedicated to the pursuit of large rewards. But skill in such a field would almost inevitably make for enviable repute.

Genetics Versus Eugenics

The latest advances in our knowledge of genetic principles put a brake on the cocksure eugenist who has fatuously believed that through wide sterilization of the "undesirable" and "unfit," and through encouragement of marriage and reproduction on the part of the "desirable" and "fit," he could eliminate "bad" strains and insure evolution along "right" lines.

But the geneticists have shown that it is not so simple as all that. We are all carriers of bad genes. Environment is now getting a better "break."

Too many strangely linked genes are involved, and we know very little about them. Human heredity cannot be charted like that of fruit-flies.

What is unfitness? What is unsocial behavior? How vague such concepts are. One sees monstrous behavior, as viewed by certain "respectable" standards, giving results actually rated, ultimately, as socially noble. To particularize is surely needless. Who can say that the "best" culture of the day is perfect? Were the Moors or the barbarians substandard? Is not the energy of a Capone, *in itself*, just as good as that of a Jonathan Edwards?

He who would, in our present state of knowledge, not hesitate blithely to direct the "evolution" of his fellows in eugenic fashion, himself falls into the defective class.

The most significant data on these points are to be found in Hogben's *Genetic Principles in Medicine and Social Science* (New York, Alfred A. Knopf, 1932).

Says Hogben: "Generally speaking, we are not in a position to standardize the genetic composition of human beings."

What We Believe and What We Profess

"Empiricism" probably holds sway to a much greater degree than we are prone to think despite our protestations regarding strictly scientific principles and practice. Undoubtedly, there are obstetricians, for example, who believe (or know) that they can, by taking diet and nutrition skilfully into account, produce desired changes in the weight and size of the fetus, although they would not think of writing anything down on this point. Unquestionably, there are clinicians who habitually take into account the element of arterial peristalsis in dealing with certain *so-called* cardiac conditions, although anything like complete scientific interest has so far not been taken in this physiological truth. As for drugs—well, anyone can supply illustrations.

So some empiricisms are not so very empirical after all. The empirical tends to disappear like the "functional" and the "idiopathic."

This idea suggests another—that of missed truths. It is interesting to speculate about the many perfectly good concepts, methods and facts that may never be adopted and applied as useful and true. Great things, really more important than anything now accredited, have been entirely missed while in plain view, or not accepted, or toyed with and dropped. Very many of the things that have been accepted have "gotten by" by a very slim

margin. Professor Bernard J. Stern, of Columbia University, has written a book on this subject (*Social Factors in Medical Progress*, Columbia University Press, 1927) that every physician ought to read; it is an astounding contribution.

Perhaps arterial peristalsis may remain for awhile one of the hazily seen facts, and then pass out entirely. Yet it probably means as much to medicine as, for example, insulin.

Drinking Water With Meals

The opinion is quite widely held that drinking water with meals is bad. It is true that drinking large quantities of water with meals can disturb digestion and even dilate the stomach unduly, and that if the water is very cold the harm is greater. But drinking water with meals in moderate quantities is a good thing. It helps digestion by facilitating the mixing of the food with the digestive juices in the stomach, and it cleans off the tongue, thereby improving the taste function. Moreover, water taken with the food favors the passage of the food from the stomach into the intestine and its further digestion and absorption there.

E. E. C.

Neglected Equities

Doubtless the day will soon come when the assumption of the rôle of specialist by well qualified men only will have to be formally sanctioned by State authorities, medical and civil.

When that day comes, we wonder whether the specialist will be enjoined against general practice (which is not now the case, although it ought to be.) This would seem fair, as the general practitioner would certainly not be able to masquerade and "hijack" as a specialist and it is obvious that restrictions should be reciprocal. The very terms and conditions under which a specialist would then be constituted would definitely forbid the general practitioner to compete with the specialist on his own ground. Why, then, should the general practitioner not be protected against the predatory specialist?

A Healthy Year

Physicians who believe that the depression has caused a reduction in their incomes will find comfort in the data from the bulletins of the United States Public Health Service and other reliable sources. From January to August of this year the general health of the population of the United States and Canada has surpassed that of any other like period. In all sections of the country there have been fewer deaths and the colored population has benefited even more than the whites. Tuberculosis has shown the most remarkable decrease while diseases of the heart, cancer and chronic nephritis have shown an increase.

M. W. T.

The Arthritic Shrine

It is said that over a thousand cases of arthritis are treated daily by a doctor in Ontario. The entire treatment consists of some sort of foot adjustment; then properly fitted shoes are prescribed.

There can be no doubt, especially to those who treat arthritis, that a great deal of benefit comes in the treatment of arthritis of the lower extremities when the feet are allowed to stretch. Seventy-five per cent of all shoes are from one-half to one or more sizes too small. As a result we have the following defects: corns, jammed and crowded toes, bunions, overriding toes, ingrowing nails, hammer toes, callosities and displacement of the large toes. Too narrow shoes will cause serious dam-

age to the arterial circulation in later life, resulting in severe suffering, loss of work and even amputation.

During the war, soldiers who had previously worn shoes which were too small or too narrow found that the army shoes did them a great deal of good. They now wear shoes from two to three sizes larger and wider than when they entered the army.

Without doubt many cases of arthritis are benefited by shoes which allow the foot to stretch. The inner line of the shoe should be straight, thus preventing the great toe from being turned in, with loss of leverage and bunion formation. When other treatments have failed an extra wide shoe seems to relieve the patient of arthritic symptoms. As a result of shoes which are too narrow, it is impossible to exercise properly and that fact alone causes a disturbance of metabolism.

A great many men and women are proud of their small feet. If a physician suggests that they wear a wider shoe they immediately show their disgust. Patients, of course, love the mysterious in medicine, and they are traveling the roads by the thousands to the small town in Ontario to get the right kind of treatment for their feet; their attention is focused on their feet and they are thrilled to get a shoe which gives relief to feet that have been punished for years.

When the foot is allowed to stretch, naturally the wider shoes are hideous and the foot swims about in the shoe. However, if the patient is persistent, in a month the foot will begin to stretch and deformities—if not too far advanced—will begin to correct themselves. In some instances, it requires a year to stretch the foot to its proper width.

Few physicians have the time and inclination to insist on this thing. Now that the doctor in Ontario has realized the importance of his theory and has concentrated on it, people from far and near will go there to learn how necessary normal feet really are.—M. W. T.

Duty of a Hospital Medical Staff to the Hospital

A hospital is an institution for the care of the sick and injured. Necessary for the accomplishment of its purpose are a plant, money, management and a medical staff. All these elements are essential in the hospital organization, and while their activities must be correlated and centrally controlled they have each a distinct function. What is the function of the medical staff, or, to put it in another way, what is the duty which the medical staff owes to the hospital?

This duty is to supply medical and surgical service to the patients which the hospital receives. And it is not enough that this service meets the minimum legal requirement of average skill, etc. It is properly expected of a hospital medical staff that it supply professional service better than that supplied by the average private physician.

The following are fundamental requirements for the performance of this duty by the medical staff.

First, the medical staff must be adequate, that is, it must contain a sufficient number of physicians and a sufficient amount of skill to do its work properly. This does not mean that every member of the staff must be an expert specialist, but it does mean that the staff must contain a sufficient number of expert specialists to supply all reasonable demands of the service.

Second, it must be organized so as to do its work effectively and easily.

Third, it must cooperate so that the best knowledge and skill of the entire staff can be brought to bear promptly on any particular case if needed.

Fourth, it must be actuated by a spirit of loyalty to the hospital institution.

In regard to the adequacy of the hospital staff there should be no difficulty; but in order to insure adequacy it may be necessary to safeguard against the possibility of selfish interests acting to limit the personnel of the staff and to keep down the level of its service. It does no harm for a hospital staff to be unnecessarily large, but for it to be deficient in personnel or skill is seriously detrimental.

In regard to the organization of the medical staff it may be said that it is not so much the type of organization as the manner in which the organized staff functions that counts. The type of organization which might best suit one hospital might not best suit another. The more highly centralized types of organization might be more suitable for the larger hospitals and those whose medical staffs include a large proportion of physicians of the higher grades of superiority; while the less centralized types of organization might be more suitable for smaller hospitals and those whose medical staffs do not include such a large proportion of physicians of the higher grades of superiority. The organization that will best bring out the capacities of the particular staff and most facilitate its utilization by the hospital is the one to be sought. A point in the organization of the medical staff which from some aspects appears to be important, is the limitation of the term of office of the president to one year without privilege of immediate reelection. This makes against the possible establishment of undesirable influence and also tends to bring out latent capacities in the staff and to increase its effectiveness.

In regard to cooperation in the medical staff it may be said that effective cooperation depends on the establishment of three fundamental conditions, viz., confidence, courtesy and absence of selfish intrigue.

In regard to loyalty to the hospital institution it would seem that no question could arise, and that such loyalty should be taken for granted.

The medical staff exists primarily for the hospital. It is fitting and proper, however, that the medical staff should receive benefit from the connection. In accordance with the rule, that the more that is given, the more will be received, it may be confidently stated that the better the service which the medical staff puts into the hospital, the more good for itself it will get out of the hospital.

E. E. C.

Miscellany

The Reproduction Depression

Note.—Leningrad: births 39,058; abortions 53,512 (1929)—Parry, "Criminal Abortion," 1932. Germany: abortions 1,000,000 annually, with 6,000 deaths; relation between miscarriages and normal births 93 to 100—Parry. England: number of abortions staggering—Marie Stopes. U. S.: abortions 1,250,000 annually—A. J. Rongy.

UTERUS (to right ovary): Now as one organ to another, what is the matter with you? You look depressed.

RIGHT OVARY: You are looking rather down in the "mouth" yourself.

UTERUS: I fancy that our grievance is identical. Isn't it the falling off in reproduction?

RIGHT OVARY: You know how it used to be. Every time you prepared yourself to properly house a bambino by tearing up and discarding the old endometrial carpet I would dig up an egg and send the ovoid down the fallopian playing field with much helpful kicking by the cilia crowd and snappy interference and tackling on the part of the famous fertilizer and star player, John J. Spermatozoon, who usually kicked a goal in those happy days. But to-day, after all our good team work and after a bambino starts germinating in North Fundus Street,

nicely huddled in a warm and snug garden of proliferating cells, along comes a kidnaper with knockout drops, a bottle of exterminator, and a hook. Honestly, I feel sore about it. You yourself have had the jitters since that abortion six months ago, with its infective endometrial and intramural mischief and far-flung damage to our endocrine cousins.

UTERUS: Yes, John is a clever rascal. From your corner of the pelvis you can't see all that's going on in our world and have to depend a good deal on my "radio" communiqués. I, in turn, in addition to direct observation, receive much general information from the broadcasts of Associated Uteri, Inc. It is wonderful, as I have often told you, the way John runs the gauntlet of diaphragm pessaries, jellies and condoms. It's a shame that such team work as ours should so often flop; for the abortionist regularly mops up after the contraceptionist.

LEFT OVARY: We have very little to fear from the latter. He's a good deal of a fraud, even getting credit when some pathology, and not some absurdly crude and harmful contraption, prevents pregnancy, just as credit was once taken by the hucksters of so-called abortifacient drugs when menstruation occurred for natural reasons. He always reminds me of the gentry to whom largess is proffered by honest but stupid people who, although successful in attaining some job, some right, or some privilege, think they owe something to the supposed political influence of these background fakers. But we can't win against the abortionist.

UTERUS: The contraceptionist may be a fraud as a baby decimator but he's the real cheese and a public nuisance as a producer of dangerous local irritation. It's about a year now since they began to stick that pessary with proths into my cervix and I have begun to notice rather strange, disquieting behavior on the part of certain cells down there. They are acting rather lawlessly because of the chronic irritation and I am a bit worried about the outcome if they get completely out of hand.

RIGHT OVARY: What's the big idea about all but outlawing motherhood? Why the biologic depression?

UTERUS: A hormone who has been knocking about in the cerebral cortex of this lady of ours told me the other day that he had been examining the cellular records up there which chronicled her reactions to the thought and behavior prevailing on this particular point in the outer world. It appears that there is a belief that by reducing the population of the earth the economic welfare of men and women will be promoted. But it seems that most of their troubles are really due to the inequitable distribution of the world's wealth, since it is mostly in the hands of the few.

RIGHT OVARY: It comes down to this: the birth control business is a wretched expedient and palliative to meet, inadequately, deplorable but remediable conditions, and no rationalization can justify the rickety philosophy of its promoters, who are either incorrigibly naive or moronic, to put it charitably. If they admitted the real significance of the birth-control movement they could be forgiven, but no, they are selling a glorious panacea. To this, we can only say: "Rats!"

LEFT OVARY: What's all their shootin' for, anyway? A population reduced by one-half can starve just as proficiently as is now the case if the ratios of wealth production and distribution remain the same. It's just a matter of social justice. I suspect that in a well ordered economic world the birth rate would tend to be reasonably low. In fact, the same hormone that has already been mentioned told me that there are data tending to establish this as a fact.

JOHN J. SPERMATOZOOON: Play ball!

Correspondence

To the Medical Profession of Greater New York and Vicinity:

Editor, the MEDICAL TIMES:

It is essential that there occur no confusion as to the organization, merits and publicity of the Institute of Family Relations in the City of New York, Inc., and no misapprehension as to its policy of publicity.

1. Organization:

- (a) After approval by the State Board of Education, the Departments of Public Welfare of the State and City and Supreme Court of the State of New York and after compliance with all legal requirements, the Institute was incorporated on June 4th, 1931.
- (b) The Articles of Incorporation prevent the practice of religion, law or medicine. The Institute is, therefore, in cooperation and *not* in competition with associations of ministers, lawyers, doctors, welfare workers, educators and the like professional individuals.
- (c) It is emphatically *not* a clinic, hospital or other medical centre.
- (d) It is not affiliated with, controlled by or subordinated to any association, corporation or group whatsoever. This status arises from its incorporation and from conclusive advice, based on long experience, that in social welfare work the affiliated body is always rated as the secondary or experimental undertaking.

2. Merits:

- (a) A competent Board of Officers and Directors, Advisory Councillors and Endorsers (in principle) as to the absence, need and service of such family welfare work.
- (b) Closely interwoven functions: promotive, preventive, instructive, consultative, corrective, cooperative, constructive and informative.

3. Publicity:

A standing Committee on Publicity has been created, which under voted authority of the Board of Directors will edit and release all matter to the secular, religious, professional and vocational press. This adequate plan should result in the publication of only authorized matter and thus in relief of any individual of responsibility, beyond that of carrying out the authority of the Board of Directors and Committee on Publicity.

It is hoped that this brief survey meets its basic object, namely, correction of confusion and misapprehension, if any, and their prevention in the future.

This letter has been sent in this mail to the Presidents of the following Medical Societies:

New York Academy of Medicine
Medical Society of the State of New York
Medical Society of the County of New York
Medical Society of the County of the Bronx
Medical Society of the County of Queens
Medical Society of the County of Kings
Medical Society of the County of Richmond
By order of The Board of Directors.

Yours truly,

VICTOR C. PEDERSEN,
General Secretary-Director.

New York, October 7, 1932.

Veteran's Relief

Editor, MEDICAL TIMES AND LONG ISLAND MEDICAL JOURNAL: Your department editor on Economics, October issue, states that there are 120,000 unoccupied hospital beds, and as a corollary the golden stream disbursed by the Veterans Bureau for the care of the sick and wounded soldiers should be diverted to private irresponsible establishments now tottering on the brink of bankruptcy.

The recent tirade of the New York Academy of Medicine against the former service men does not warrant confidence in the good-will of its authors, particularly as their failure to eliminate the Veterans Bureau induced them to assist to the full extent of their limited influence the propaganda against the wards of the country, and their objections stripped of dissembling non-essentials may be stated as follows:

- (1) The adjusted certificates (bonus) are not due until 1945.
- (2) Immediate payment of certificates would destroy the financial stability of our fiscal system, and confidence of European nations in our currency.
- (3) That organized veterans do not represent the body of

veterans many of whom are opposed or indifferent to present payment.

The correctness of the first point is freely admitted, however—inasmuch as the millions advanced to railroads, banks and other corporations by the Reconstructive Finance Corporation do not represent a debt, and were made on such unsound security, that repayment is not considered seriously. (No private banker would touch such loans.) The veteran was justified in demanding as a right to be freed from starvation, through the medium of immediate payment of his certificate, which was merely changing the form of an existing obligation, and which must be met anyhow, which is an entirely different matter from the R. F. C. loans the government granted incurring obligations which will impose a heavy burden on others, not the recipients of the bounty.

An example of that character is a poor method of encouraging respect for our laws; it demonstrates that the dollar is mightier than the man.

Meeting the second objection, practically all the proposals for the immediate payment of the certificates contemplate payment in currency to be issued for this special purpose. The present annual payment of about \$132,000,000 included in expenditures for veterans which will provide the fund to pay the certificates at maturity, can be continued as at present, and the sum accumulated applied in 1945 to the retirement of this new money, rather than the certificates. The question at issue is what effect this added currency would have on the stability of our money; this is purely a matter of opinion, and to combat the propaganda that it would depreciate our currency and cause withdrawals of gold, the veteran cites facts:—

Within the past few months the Federal reserve bank issued about \$1,100,000,000 of new currency to enable it to purchase government bonds in the open market—the assumption being that these bonds would be sold by banks and the new money so placed in the banks would loosen credit. It is curious that the issuance of this money did not meet with any objections by those who claim that issuing money to acquire or pay off the veterans certificates, which, like the bonds purchased, are future obligations of the government, would completely upset our fiscal system.

The Glass-Stegall Bill authorizes the issuance of nearly \$1,000,000,000 additional national currency by banks. The issuance of some and the authorization of the remainder of this money has caused hardly a ripple on our financial sea.

The veteran is justified in charging that opponents of immediate payment of the "bonus" fail to make out a case as to the impossibility of payment because the experts they call in to testify as experts fail to qualify on the basis of past performance.

Nature's measureless wealth and man's productive ingenuity are unimpaired, yet we are not able as a gigantic family to distribute work and the benefits of work equitably nor even adequately.

This is the central problem of American life, as it is indeed of every nation. Until we have mastered the means of distributing opportunity and the fruits of labor we cannot claim to be rational beings, but rather must own ourselves to be superstitious and ignorant creatures on a planet we do not understand, playing roles in a vast co-operative enterprise that we do not comprehend.

It is admitted that some veterans oppose payment of the bonus, but those objectors are confined to the ranks of wealth, place hunters or office holders.

MARTIN W. CURRAN, M.D.,
Commander, Shamong Post 2140,
Veterans of Foreign Wars of the U. S.,
Dept. of New Jersey,
Chatsworth, N. J.

*Ed. Note.—*The editorial expressed the deep obligation of our people to furnish "every possible aid to those who have incurred disability during their war service or as a result of their service experiences." It questioned the action of the "Government in giving complete medical institutional treatment to all veterans of any war for sickness from any cause," regardless of how long after the war the sickness was contracted. The editorial stated that in 1931 seventy-six per cent of the patients in Veterans' Hospitals were there for disabilities in no way connected with any military service. It will have cost billions of dollars for new hospital construction alone to furnish such accommodation, while in existing approved hospitals there are 120,000 unoccupied beds where under direct "Government scrutiny the veterans could, if must, be cared for at less daily cost than in the new hospitals, and where the sick would be treated near their homes and not, in many instances, be transported long distances at national expense" and the billions of dollars for construction saved. And while the subject of early bonus payments was not discussed in the editorial, veterans must appreciate that the more money saved in these times the easier it will be for them to secure the remaining two and a half billions of dollars due in 1945.

MEDICAL BOOK NEWS

Edited by WILLIAM HENRY DONNELLY, M.D.

All books for review and communications concerning Book News should be addressed to the Editor of this department at 1313 Bedford Avenue, Brooklyn, New York.

NOVEMBER, 1932

REVIEWS

Classic Descriptions of Disease

CLASSIC DESCRIPTIONS OF DISEASE. By Ralph H. Major, M.D. Springfield, Ill., Charles C. Thomas, 1932. 630 pages, Illustrated. 4to. Cloth, \$4.50.

This volume is the outstanding medical contribution of the year. It touches the heights of all around excellence. It consists of six hundred and thirty pages of reading material embellished with one hundred and twenty-seven illustrations. The subject matter represents three hundred and seventy-six selections carefully pruned from the writings of one hundred seventy-nine heroes of medicine. Its scope is broad, embracing nearly every phase and interest. The plan of the book is ideal, as the readings are arranged under titles such as disease of the blood, kidney respiratory system, etc., all of which give the book a definite smoothness for reading as well as facilitating its use for hasty reference. The whole work is carefully put together, and is one of which both the publisher and purchaser might well be proud. It possesses a physical solidarity which will insure a long life which it well deserves.

The main purpose of the book is to present within the confines of one volume the original accounts of such diseases which have marked a definite forward step in medical progress. It is the type of book for which many of us have been waiting and wanting for a long period. Too often the desire to read an account in the original is frustrated by lack of time or lack of library facilities. This book solves the problem, and solves it well.

To the physician with even a mild interest in the history of medicine, the sum total of the short pithy biography preceding each description of disease, would form an interesting, entertaining volume, apart from the essential basis of the book. The author has gone to great lengths to impart life and interest to each biography. The reviewer has introduced a few excerpts as examples—Nicholas Tulp—"Tulp's personal appearance has been immortalized in Rembrandt's celebrated picture 'The Anatomy Lesson,' which pictures Tulp dissecting before a group of surgeons."

Of Sir William Gull "His impartial attitude in medicine was expressed when he said: 'We have no system to satisfy, no dogmatic opinions to enforce. We have no ignorance to cloak, for we confess it. He was never tired of exposing the prevalent polypharmacy and remarked, 'I do not say that no drugs are useful; but there is not enough discrimination in their use.'"

Of Caleb Hillier Parry—"Once, while walking home with a companion after a long morning's work, his friend remarked that his waistcoat pockets, cut large according to the fashion of the day, seemed quite full, possibly of guineas. 'Yes,' Parry replied, 'I believe there are ninety-nine; I may make it a round sum before I get home!'"

Of Sir James Paget—"Once he was challenged to a sort of contest in brevity, and accepted the challenge. His adversary was a Yorkshireman, who came into his consulting room, and merely thrust out his lips, saying 'What's that?' 'That's a cancer,' he answered. 'And what's to be done with it?' 'Cut it out.' 'What's your fee?' 'Two guineas.' 'You must make a deal o' money at the rate.' And there the consultation ended."

In these brief sketches he has introduced touches of human interest, which seem to make each individual physician stand out quite distinct from the group, in itself quite a difficult task, when we consider that he has given us concise reviews of the lives of approximately one hundred and seventy physicians.

Because of its composition, although obviously not prepared

with this intent, this book should serve as an ideal supplementary textbook in medicine. For the student it is priceless. To him it should prove to be of both educational and cultural value. This is the very type of book which should be found on every physician's "six-foot shelf."

HAROLD R. MERWARTH.

Electrosurgery

ELECTROSURGERY. By Howard A. Kelly, M.D., LL.D., and Grant E. Ward, M.D. Philadelphia, W. B. Saunders Company, 1932. 306 pages, illustrated. 4to. Cloth, \$7.00.

We recommend a study of this book by all surgeons. There is present a wealth of material worthy of credence, and demanding the adoption of the electrosurgical technique. It is a very valuable addition to the many and great contributions to surgery by its authors, Howard A. Kelly and Grant E. Ward.

The technical description of the apparatus used is the clearest the reviewer has read. We, who have used the electric scalpel and electric coagulation for some years, can vouch for the modesty of the claims made by the authors. This is a wonderful addition to our armamentarium. The reticence and hesitation evident in the lack of general adoption of this method, has always been an enigma to us. If all will read and follow the advice given in this work on "Electrosurgery," all will be as enthusiastic about it, as its authors and the reviewer.

It well fulfills a great want in medical literature. Its teaching will introduce to many this great advance in surgical procedure. The practise of the principles it presents, will bring great satisfaction to patients, hospitals, and surgeons.

The coagulation or dehydration of vessels, eliminating ligatures for all but large vessels; the simplicity of dissections and incisions in vascular regions, e.g. face, liver, kidneys, etc.; the security of sealing lymphatics in such procedure as radical mastectomy; these are but a few of the items to be mentioned and approved.

Again, we advise the study of this valuable, beautifully written and illustrated work.

EDWIN H. FISKE.

Diabetes in Childhood and Adolescence

DIABETES IN CHILDHOOD AND ADOLESCENCE. By Priscilla White, M.D. Philadelphia, Lea & Febiger, 1932. 230 pages, illustrated. 8vo. Cloth, \$3.75.

This excellent book is from Joslin's clinic. In considering etiology it is stated that there is evidence of an hereditary taint in juvenile diabetes. The disease is believed to be transmitted as a simple Mendelian recessive and the importance of this in the control of the malady is explained. Joslin, in the foreword, states that "he believes that obesity will yield to heredity as the primary factor in the discussions upon the etiology of diabetes." Infections were not found to be a factor after comparing the occurrence of these in diabetic and non-diabetic children.

Extreme variations of blood sugar in children were found. "In the fasting state the blood sugar may be three or four times the normal value and yet three hours after the child has received insulin and has eaten breakfast the blood may be at hypoglycemic levels."

A study is presented of the cholesterol values, this substance being taken as the index of total lipid. Over 230 mgs. per cent of cholesterol in the blood is considered abnormally high. The solution of the etiological significance of faulty fat metabolism as a precursor of arteriosclerosis and other complications as acidosis, coma and infections has not been found, but interesting studies are presented. Acidosis was not necessarily associated

with an increase of blood cholesterol, coma was, in every instance but one, but the severity of the coma measured by the height of the blood sugar and depth of acidosis, did not bear any exact relation to the excess of cholesterol. The post prandial peak of the percentage of cholesterol is at the fourth hour.

The most desirable partition of the diet materials is found to be still open to discussion and the calories given per kilo of body weight vary from 90 to 100 at the age of 1 to 40 to 50 at the ages of 10 to 15. The selection of the author for a child of 5 years weighing 16 kilos where it is wished to give 75 calories per kilo would be C100, P48, and F64. For a child of 10 years weighing 28 kilos to whom it was desired to give 60 calories per kilo, the author's choice would be about C135, P70, F90. In the period from 1924 to 1931 the average amount of carbohydrate prescribed for the child who came to the clinic for the first time, increased from 63 to 133 grams at the same time the insulin doubled from an average of 8 to 16 units a day. A middle course with regard to the amount of carbohydrate is followed, generally 100 to 200 grams with a moderate amount of fat, from 35 to 60 per cent of the total calories and of protein enough to make 10 to 20 per cent of the total calories or 1.8 to 2.3 grams per kilogram of body weight.

Insulin was given to all diabetic children, the dosage to match the diet—the "diet considered to be the constant varying only with the caloric requirements of the child and insulin and exercise the variables." The insulin requirement has varied from one to 100 units and the dose in 24 hours from once to four times, generally three. If sugar appears in the urine upon rising or if the fasting blood sugar is more than 0.20 per cent a small dose may be given between 10 P. M. and midnight.

The discussions of hypoglycemia, coma and of the pathology and complications are most interesting and it is a splendid book throughout.

W. E. McCOLLOM.

Practical Endocrinology

PRACTICAL ENDOCRINOLOGY. By Henry R. Harrower, M.D. 2nd edition. Glendale, Cal., Pioneer Printing Company, Inc., 1932. 704 pages. \$vo. Fabrikoid, \$5.00.

The number of treatises on the subject of endocrinology is growing rapidly. This volume by Doctor Harrower, however, is somewhat different from most of the recent ones. A study of it reveals that the author unquestionably has devoted a great deal of time and energy to the preparation of this volume. This effort together with a life-long experience as a practitioner of endocrinology, a research worker and a manufacturer of endocrine products, would make the reader expect a concise, practical book of fundamentals and essentials.

In this, however, the reader, we fear, will be disappointed. There is an extensive chronologic outline of all endocrine discoveries and studies. Then again, there is a complete study of each individual gland including the liver and spleen, although up to the present there is no conclusive proof as to the latter organs belonging to the endocrine family. This is followed by a discussion of diseases among which are included hemorrhage, angina pectoris, Hodgkin's disease and the common cold, all apparently having their source of origin in one or more secretory glands.

Therapy is treated with a still greater ramification. Epilepsy, rheumatism and other maladies the author states, may be approached by endocrine pills.

But the most objectionable part of the author's book is his too frequent references to his own researches and to his commercial products. Adreno-cortin is repeatedly mentioned. Moreover, when an author enters into the realm of prophesies in a book called "Practical Endocrinology" and begins to gaze into a crystal for the future of some of the glands, he immediately removes himself from genuine scientific work.

The book seems to lack a solid foundation. It misses hard scientific facts, doubtful material is readily accepted as uncontroversial and all these remove the real scientific value from it. The general practitioner and the specialist will find little aid in their work from this book.

J. S. BENDETSON.

American Illustrated Medical Dictionary

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. By W. A. Newman Dorland, M.D. Sixteenth edition. Philadelphia, W. B. Saunders Company, 1932. 1493 pages, illustrated. \$vo. Flexible and stiff binding, plain, \$7.00. Thumb index, \$7.50.

This, the sixteenth revised and enlarged edition of Dorland's complete dictionary, represents a notable achievement in its field. More than 3,000 new words have been added and there are many special features that will win praise. The dictionary's large portrait gallery constitutes a most attractive addition. The terminology conforms with the requirements of those accredited scientific bodies which have adopted definite standards. The work commands the highest commendation as an indispensable authority, with all definitions marked by simplicity, clarity and completeness.

ARTHUR C. JACOBSON.

Functional Disturbances of the Heart

FUNCTIONAL DISTURBANCES OF THE HEART. By Harlow Brooks, M.D. Philadelphia, J. B. Lippincott Company, [1932]. 258 pages. 12mo Fabrikoid, \$5.00. (Everyday Practice Series.)

The disorders dealt with in this volume, although very common, have received too little attention in medical literature. Even the larger text books deal rather inadequately with them. The book has been written to give the practitioner definite facts by which he can recognize the different syndromes and details of the proper methods of treatment. It is attractively written, easy to read and should prove of great value to every practitioner.

HAMILTON CRAWFORD.

International Medical Annual, 1932

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. Fiftieth Year, 1932. Edited by Carey F. Coombs, M.D. and A. Rendle Short, M.D., New York, William Wood Company, 1932. 658 pages, illustrated. \$vo. Cloth, \$8.00.

As usual this book presents a useful review of the year's work in treatment. There are eighty-one plates and one hundred and seventy-nine illustrations. The size is slightly larger than usual. There are some special articles added on veterinary surgery, distemper being scientifically considered. The blood diseases are reviewed at length, such recent measures as the intravenous and intramuscular use of liver extract being noted also the value of ferrous salts in large doses in the treatment of the microcytic anemias of later life. Among many other observations of interest are those on the use of ammonium nitrate as a diuretic, a comparison of various hypnotics, the use of adrenal cortex in the treatment of Addison's Disease and many surgical topics.

It is a very useful book for the physician in general practice, or for the one, who limiting his efforts largely to one field of medicine, wishes to obtain without much effort, a summary of recent advances in the other departments.

W. E. McCOLLOM.

The Sputum

THE SPUTUM. Its examination and Clinical Significance. By Randall Clifford, M.D. New York, The Macmillan Company, 1932. 167 pages, illustrated. \$vo. Cloth, \$4.00.

This monograph presents in a concise, interesting style the essential points of the routine sputum examination. It is a valuable addition to the library of the country doctor, who must perform his own laboratory examinations; and it will also serve to acquaint the city doctor with the importance of sputum examinations as an aid to diagnosis.

ALEXANDER S. WIENER.

Psychopathology of Forced Movements in Oculogyric Crises

PSYCHOPATHOLOGY OF FORCED MOVEMENTS IN OCULOGYRIC CRISES. By Smith Ely Jelliffe, M.D., Ph.D. New York, Nervous and Mental Disease Publishing Company, 1932. 219 pages. \$vo. Boards, \$4.00. (Nervous and Mental Disease Monograph Series No. 53.)

This is a remarkable book by a remarkable man—one who is an acknowledged leader in the psychoanalytic movement in America and at the same time so well informed in organic neurology as to have been elected president of the most exclusive group of organic neurologists who comprise the American Neurological Society.

The author attempts to get at the meaning of the oculogyric phenomena that occur in many of the postepidemic encephalitic states. To him they are representatives of emotional states, ranging from anguish to ecstasy, and the expression of the interaction of the ego, superego, and id, as known to psychoanalysts.

After an exhaustive summary of the cases that appeared in the literature during the last decade, the author points to the futility of mere description of these movements without any interpretation of the meaning behind them. He then proceeds to elucidate the dynamics of these peculiar disorders.

It is a most stimulating book, scintillating with philosophical and psychoanalytic abstracts, and one that leads people to think. To the neuropsychiatrists this book is indispensable; to all others, it will stimulate activity of those portions of the brain that are generally referred to as "silent areas."

IRVING J. SANDS.

Purchase of Medical Care Through Fixed Periodic Payment

THE PURCHASE OF MEDICAL CARE THROUGH FIXED PERIODIC PAYMENT. By Pierce Williams. New York, National Bureau of Economic Research. (Publication No. 20), 1932. 308 pages. \$vo. Cloth \$3.00.

This volume presents in its first fly leaves an elaborate statement of who constitute the National Bureau of Economic Research and of volumes previously sponsored by that Bureau. It neglects to state who pays the bills and, therefore, who controls the general policy. Apparently this volume is the outgrowth of an invitation from the Committee on the Costs of Medical Care to the Bureau to make a survey of the extent to which people of the United States make use of the principle of insurance in order to secure medical and hospital care.

The three hundred pages of text represent largely extracts and

briefs or notations compiled from material gathered by correspondence. It deals with what is commonly known as industrial medicine, such as found in the mining, industry and lumber camps. One finds many interesting facts and, as a source of reference to the field of medical service provided by the employer, it may prove to have a value. As a book it is a failure since the presentation of the topic is not scholarly in its analysis. It is not well proportioned as to its material. The civic and economic logic is most shallow. It is not in every instance dependably accurate and finally, in spite of an avowed impartiality that point of view is not maintained. For example, in chapter two—The American Campaign For Compulsory Sickness Insurance Legislation (1914-1920)—there is an extended discussion from the proponent's point of view and none of the points of opposition presented in New York State have been noted.

Taken as a whole this book would seem to indicate that the first move has been printed to initiate another ugly campaign for socialization of medicine.

F. E. ELLIOTT.

Surgical Clinics of North America, Vol. 11, 1931

SURGICAL CLINICS OF NORTH AMERICA. Vol. 11, 1931. Issued serially, one number every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 nos.). Paper, \$12.00; Cloth, \$16.00.

Volume 11, Number 1 (Chicago Number) February, 1931. The first number of Volume 11 (February, 1931) comes from Chicago. Dr. Christopher describes a case and has illustrations indicating a very practical method of treating dislocated hip, with fracture of acetabulum. Dr. Bevan discusses the principals involved in laparotomy in a very detailed and excellent manner, using cases to illustrate his most interesting lecture. This number, although very good, and containing some excellent clinics, is hardly up to the usual Chicago standard.

Volume 11, Number 2 (Lahey Clinic Number) April, 1931. This number comes from the Lahey Clinic, Boston, and has an excellent clinic on Carcinoma of the Colon—by Dr. Lahey. Dr. Paul Vestal has a very interesting and instructive clinic on Splenectomy. As usual, with a Lahey Clinic Volume, there are several interesting discussions of Thyroid and Para-Thyroid diseases by Doctors Lahey, Clute and Cattell and Hurxthal. This issue is well up to the usual standard.

Volume 11, Number 3 (New York Number) June, 1931.

The June Volume is from New York and contains a very interesting report of Lung Abscess with inter-lobar Empyema, by Dr. Lilienthal. The major part of this volume is devoted to the New York Fracture Committee of The American College of Surgeons. The clinical meeting of this committee at the Presbyterian Hospital was conducted by Doctors Darrah and Murray. The cases presented and the methods used in handling the various types of fractures, were all greatly interesting. The remainder of the number is well up to the usual standard of these clinics.

Volume 11, Number 4 (Mayo Clinic Number) August, 1931.

The August issue comes from the Mayo Clinic and contains a very interesting clinic by Doctors Balfour and Down on Duodenal Ulcers with Recurring Gastrojejunal Ulcer. The clinics are handled in the concise and interesting manner characteristic of the Mayo Clinic. Surgery is covered in a more general manner than in any of the previous volumes of this year.

Volume 11, Number 5 (Pacific Coast Surgical Association Number) October, 1931.

This number contains clinics with both comparatively rare and unusual cases. However, Dr. J. Earl Else gives a very practical and interesting discussion of Cholecystitis with case report. Among the other case reports is one on Endothelioma of the Pericardium. The rest of the clinics in this volume are interesting and represent a great deal of study in their preparation and review of the topics under discussion.

Volume 11, Number 6 (Philadelphia Number) December, 1931.

The December copy, which is the last of the 1931 series comes from Philadelphia. The largest clinic, and probably the most interesting one, is that of Dr. Chevalier Jackson and Dr. Wayne Babcock which represents a clinic on 7 different types of cases which were exceedingly well worked up and varied from Laryngectomy for Carcinoma of the Larynx to the Non-surgical treatment of the Anthrax Pustule of the Forearm.

Doctors Eliason and Wright have a very interesting clinic on the treatment of Diabetic Gangrene, bringing out points of vital interest to all surgeons doing this type of work. The remaining clinics in this volume are well up to the standard of the previous issues in 1931.

HERBERT T. WIKLE.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this Column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

TREATMENT OF SYPHILIS. By Jay F. Schamberg, M.D. and Carroll S. Wright, M.D. New York, D. Appleton and Company, [c. 1932]. 638 pages, illustrated. 8vo. Cloth, \$8.00.

THE CURATIVE VALUE OF LIGHT. By Edgar Mayer, M.D. New York, D. Appleton and Company, 1932. 175 pages, illustrated. 12mo Cloth, \$1.50.

ENDOCRINE MEDICINE. By William Engelbach, M.D. Volumes 1, 2, 3 and an Index Volume. Springfield, Illinois, Charles C. Thomas, 1932. 1795 pages and 933 illustrations. 8vo. Cloth, \$35.00.

ESPERANTA TEKNIKA MEDICINA VORTARO. By Dr. Briquet. Bruxelles, Belgium, Internacia Medicina Revuo, 1932. 359 pages. 16mo Paper, \$2.00.

HEART DISEASE. The Principles of Diagnosis and Treatment. By Crighton Bramwell, M.D. London, Edward Arnold & Company, New York, Longmans-Green & Company, 1932. 244 pages, illustrated. 8vo. Cloth, \$2.75.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION. Hospitals and Child Health. New York, The Century Company, [1932]. 279 pages. 8vo. Cloth, \$2.50.

VITAMINS: A SURVEY OF PRESENT KNOWLEDGE. Special Report Series, No. 167. Medical Research Council, London, His Majesty's Stationery Office and New York, The British Library of Information, 1932. 332 pages. 8vo. Cloth, \$1.53.

ALCOHOL AND INHERITANCE: An Experimental Study. Special Report Series, No. 168 of the Medical Research Council. By F. M. Durham and H. M. Woods. London, His Majesty's Stationery Office and New York, The British Library of Information, 1932. 63 pages, 8vo. Paper, 35c.

THE HYGIENE OF MARRIAGE. By Millard S. Everett, Ph.D. New York, The Vanguard Press, 1932. 262 pages. 8vo.

HOW TO LIVE. By Irving Fisher, LL.D., and Eugene Lyman Fisk, M.D. New York, 18th edition. Funk & Wagnalls Company, 1932. 371 pages, illustrated. 12mo Cloth, \$2.00.

THE PSYCHOLOGICAL EFFECTS OF MENSTRUATION. By Mary Chadwick, M.D. New York, Nervous and Mental Disease Publishing Company, 1932. 70 pages. 8vo. Cardboard, \$2.00. (Nervous and Mental Disease Monograph Series No. 56.)

THE MORE I SEE OF MEN—. Edited by Dr. Mabel S. Ulrich. New York, Harper & Brothers, 1932. 224 pages. 8vo. Cloth, \$2.50.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION. Milk Production and Control. New York, The Century Company, [1932]. 302 pages. 8vo. Cloth, \$3.00.

THE CHILD AND THE TUBERCULOSIS PROBLEM. By J. Arthur Myers, M.D. Springfield, Ill., Charles C. Thomas, 1932. 230 pages, illustrated. 8vo. Cloth, \$3.00.

OUTWITTING OUR NERVES. By Josephine A. Jackson, M.D. and Helen M. Salisbury. Second edition, revised. New York, The Century Company, [1932]. 420 pages. 12mo Cloth, \$2.50.

INTERNAL MEDICINE. Its Theory and Practice. Edited by John H. Musser, M.D. Philadelphia, Lea & Febiger, 1932. 1816 pages, illustrated. 8vo. Cloth, \$10.00.

WILL IT BE A BOY. The Facts About Sex Determination. By Fridtjof Okland, M.D. New York City, The Century Company, [1932]. 116 pages. 12mo Cloth, \$1.50.

BIBLIOGRAPHICAL SURVEY OF VITAMINS—1930-1930. Compiled by Ella M. Salomson. Chicago, Mark H. Wodlinger [1932]. 334 pages. 4to. Cloth, \$10.00.

AN INTRODUCTION TO ANALYTICAL PSYCHOTHERAPY. By T. A. Ross, M.D. New York, Longmans, Green & Company, London, Edward Arnold & Company, 1932. 208 pages. 8vo. Cloth, \$3.50.

RECENT ADVANCES IN OBSTETRICS AND GYNECOLOGY. By Aleck W. Bourne, M.A., M.B. and Leslie H. Williams, M.D. Third edition. Philadelphia, P. Blakiston's Son & Co., Inc., 1932. 418 pages, illustrated. 8vo. Cloth, \$3.50.

SCHIZOPHRENIA. By Helge Lundholm, Ph.D. Durham, N. C., Duke University Press, 1932. 117 pages. 8vo. Paper, \$1.00. (Duke University Psychological Monographs, No. 2.)

DIAGNOSIS AND TREATMENT OF DISEASES OF THE THYROID GLAND. By George Crile, M.D. and associates. Philadelphia, W. B. Saunders Company, 1932. 508 pages, illustrated. 8vo. Cloth, \$6.50.

Liver Death

From the foregoing observations, we feel that there is a definite type of so-called liver death which is due to some toxin elaborated in a diseased liver, which toxin acts directly on the kidneys, producing a profound degenerative change in those organs. We have observed a certain fairly definite clinical and pathologic syndrome which was seen in one case of traumatic liver pulpification, one of diffuse carcinomatous metastases in the liver, and four of long standing cholecystitis with a concomitant high grade hepatitis. All these patients died in a clinical state resembling uremia, and all showed extensive degenerative lesions in the kidneys. The blood and urinary studies were substantiated by the changes found in the kidneys. Hemorrhages from the mucous surfaces were present in four cases and their origin has not been explained.

This type of death resembles more closely the so-called hepatic exhaustion as outlined by Heyd and should be differentiated from the deaths occurring after operation on the bile ducts when the patient is jaundiced, since jaundice was present in only one case in our series and even in this instance no change in the character of the bile drainage was ever observed.—FERDINAND C. HELWIG, M.D. et al., *J. A. M. A.*, Aug. 20, 1932

Contemporary Progress
(Concluded from page 360)

dex, definite megalocytosis and signs of blood regeneration, and hypoplastic (or aplastic) with high color index, slight megalocytosis, no signs of blood regeneration. While the hematological picture of the plastic pernicious type is similar to that of true Addisonian pernicious anemia, the two are not identical. The plastic type of the severe anemia of pregnancy may become hypoplastic. The anemias of pregnancy become more severe between the sixth and eighth months. At this period the author believes blood counts should be made as a routine part of pre-natal care. The hypoplastic type and probably the plastic type also are progressive from one pregnancy to another; the iron deficiency type does not show this progressive tendency. In the treatment of the hypoplastic type, blood transfusion is the chief indication; liver and iron should usually be given as adjuvants, but they cannot replace blood transfusion. In the plastic type liver alone will often control the anemia until after delivery, when recovery occurs. In the iron deficiency type, iron, with or without liver, is indicated. Cases of severe anemia of pregnancy can be allowed to go to term under careful supervision and treatment, but if the anemia is of the hypoplastic type, further pregnancies should usually be avoided. These cases recover slowly and with difficulty.

In the study of the anemia of 82 pregnant women in whom the hemoglobin was below 70 per cent, R. D. Mussey and his associates at the Mayo Clinic (*American Journal of Obstetrics*, 24:179, August, 1932) found that the anemia was of the secondary type in all, but that there were two subtypes. In one there was a moderate reduction in red cells with a corresponding reduction in hemoglobin, moderate anisocytosis, and some polychromatophilia. The second type differs in that the reduction in hemoglobin was much greater in proportion to the reduction in red cells, and there was a resulting marked hypochromasia. The first type was the more common; it is characterized by diminished activity of the bone marrow in early pregnancy and by evidence of hemolysis when the bone marrow becomes more active in the later months. There was a tendency for patients to recover spontaneously after delivery. The authors are of the opinion that this type represents the true anemia of pregnancy, and the so-called "pernicious anemia of pregnancy" in many cases represents a severe form of this type. The second type of anemia observed is probably present prior to pregnancy, grows worse during pregnancy and persists after delivery. In treatment of both types, ferric citrate or ferric ammonium citrate resulted in greater improvement than bone marrow or fetal liver.

Roentgen-Ray Pelvimetry—

G. E. Moore and E. B. Skinner (*American Journal of Surgery*, 17:216, August, 1932) note that much work has been done in Roentgen-ray pelvimetry in England and the United States in the past two years. Those obstetricians accustomed to the use of this method "well know its superior value over any of the older methods." These authors describe a new type of Roentgen-ray pelvimeter designed by them with which the superior strait of the pelvis is kept parallel with the film, as in Järcho's method. The lead plate used in this pelvimeter is very thin so that the holes of the scale can be punched with a needle instead of drilled so as to be made more accurate. Only two rows of dots are used in the pelvimeter scale, one extending lengthwise through the center and a cross line at right angles through the center of this line. The changes in this pelvimeter, the authors state, are not radical as compared with the older type of pelvimeters, but they "are of such a nature that the manner of construction and use is somewhat simplified;" and any simplification of the procedure tends to increase its use and value.

J. B. Jacobs (*Southern Medical Journal*, 25:825, August, 1932) also describes a method of Roentgen-ray pelvimetry in which a radiotransparent table is used and the patient is measured in the position which is usually assumed at delivery. An aluminum disc with a pinhole perforation in the center is introduced to facilitate centering the X-ray tube. After the film is made it is measured by means of the perforated lead plate designed by Thoms. The X-ray tube is adjusted over this plate so that its center ray is perpendicular, and the distance from the target to the lead plate is the same as that from the target to the pelvic inlet when the film was made. The inclination of the pelvis is determined by the author's inclinometer, previously described by him. With this method a peculiar or deformed pelvic inlet may be detected which would be overlooked with other methods; transverse contraction of the inlet may also be detected. The true conjugate and the external conjugate do not lie in the

same plane, hence the inclination of the plane of the pelvis should be determined to eliminate error. The author emphasizes the importance of determining the contours and diameters of the inlet in patients who have short interspinous or intercrystal measurements (by external pelvimetry), and borderline or deformed pelvises.

Duration of Labor and Fetal Mortality

C. H. Peckham (*American Journal of Obstetrics and Gynecology*, 24:372, September, 1932) presents an analysis of the effect of duration of labor on fetal mortality from Johns Hopkins Hospital. The records of 13,658 consecutive deliveries, omitting Cesarean sections and premature births, were studied; 7,094 white and 6,564 black women were delivered. In both whites and blacks a precipitate labor, i.e., duration of less than three hours, was associated with an increased risk to the child. After the three hour duration, there was little change in fetal mortality until the twenty-four hour duration in the white race and the twelve hour duration in the negro race. After these periods the rise in fetal mortality began in each race and it increased proportionately to the increase in the length of labor. The fetal mortality rate was higher in the black than in the white race, regardless of duration of labor; the black infant tolerated prolonged labor correspondingly less well. Operative delivery followed prolonged labor, the mortality rate increased more abruptly than with spontaneous delivery. The fetal mortality was much higher when labor was complicated by contracted pelvis. With a combination of the three factors of prolonged labor, operative delivery and contracted pelvis, the fetal mortality was high and relatively higher in the negroes than in the whites, 40.52 per cent. for the former and 24.68 per cent. for the latter.

Obstetrical Analgesia: A New Method

H. H. Rosenfeld and R. B. Davidoff (*New England Journal of Medicine*, 207:366, Aug. 25, 1932) describe a method for obtaining obstetrical analgesia used at the Beth Israel Hospital of Boston, Mass. If the patient is in active labor on admission to the hospital, she is given 7½ gr. of pentobarbital-sodium (nembutal), which produces sleep in ten to fifteen minutes. If contractions are weak but painful, and labor not well established, 6 gr. of sodium amytal are given. If the numbutal is used, it is followed in fifteen to thirty minutes by rectal instillation of 4 to 6 drams of paraldehyde in 1½ oz. olive oil. If sodium amytal is used at first, 4½ gr. of nembutal are given in an hour followed by paraldehyde per rectum as above. After rectal instillation the patient quickly falls into a deep sleep, moving from side to side during contractions, but resting quietly in the intervals. When the presenting part appears on the perineum, gas oxygen is given, and the crowning vertex lifted over the perineum with prophylactic low forceps. Following labor the patients usually were drowsy and slept much of the time for eight to twelve hours, thus escaping the usual discomfort of this period. In 50 cases in which this method has been used, the average length of labor for primiparas was ten hours and thirty minutes, for multiparas five hours and twenty minutes. Forty-seven of the patients had complete amnesia, and the remaining three, partial amnesia. Twenty-eight patients showed slight restlessness; 18 patients showed moderate restlessness; and 4 patients showed a greater degree of restlessness similar to that observed with scopolamine or the straight barbiturates. In no case, however, was there any resistance to the inhalation anesthesia. Forty-five of the infants breathed or cried immediately after delivery; 5 required mild resuscitation, but one of these was a monstrosity, and 2 had loops of the cord about the neck. In no case was there any evidence of any delay in labor.

The Influence of Heredity Upon the Incidence of Lung Tumors in Mice

LYNCH (*J. Exper. Med.*, 1931, 54, 747) crossed a male mouse from a strain with a high incidence of spontaneous lung tumors with several females derived from a low tumor strain. The first generation of offspring were then backcrossed to individuals of the original strains. The resulting two groups of offspring differed significantly in the incidence of spontaneous tumors of the lung. These facts are discussed in relation to others previously discovered. It seems clear from the evidence presented that there are among mice constitutional types which differ in incidence of tumors of the lung and that the differences are inherited. The number of genetic factors involved has not been determined. No influence of sex was apparent. The possibility of there being genetic factors which affect tumor age will be dealt with later.—*Am. Jour. M. S.*

